WWF

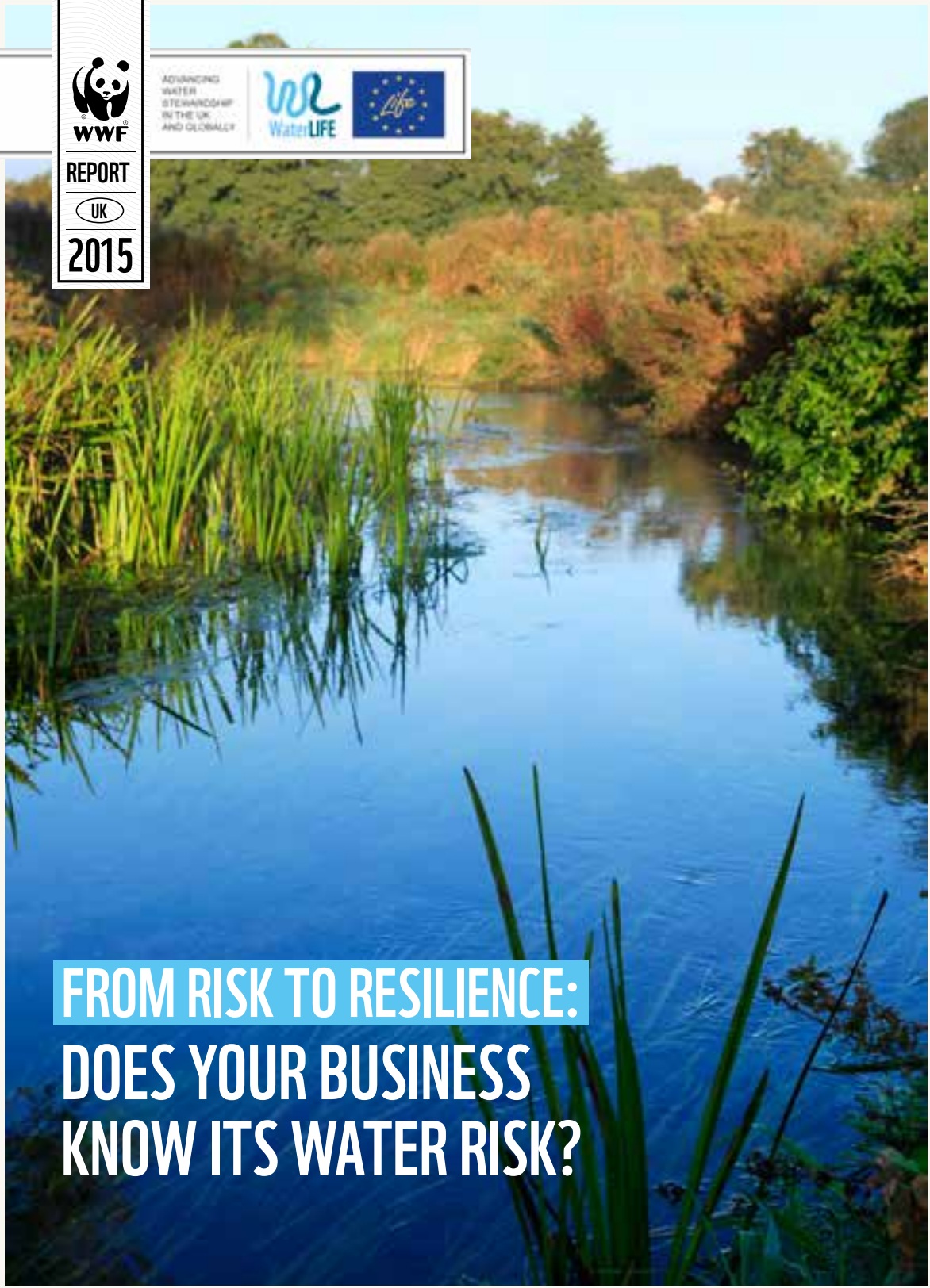
REPORT

UK

2015

ADVANCING WATER STEWARDSHIP IN THE UK AND GLOBALLY

WaterLIFE



FROM RISK TO RESILIENCE:

DOES YOUR BUSINESS KNOW ITS WATER RISK?

ACKNOWLEDGEMENTS

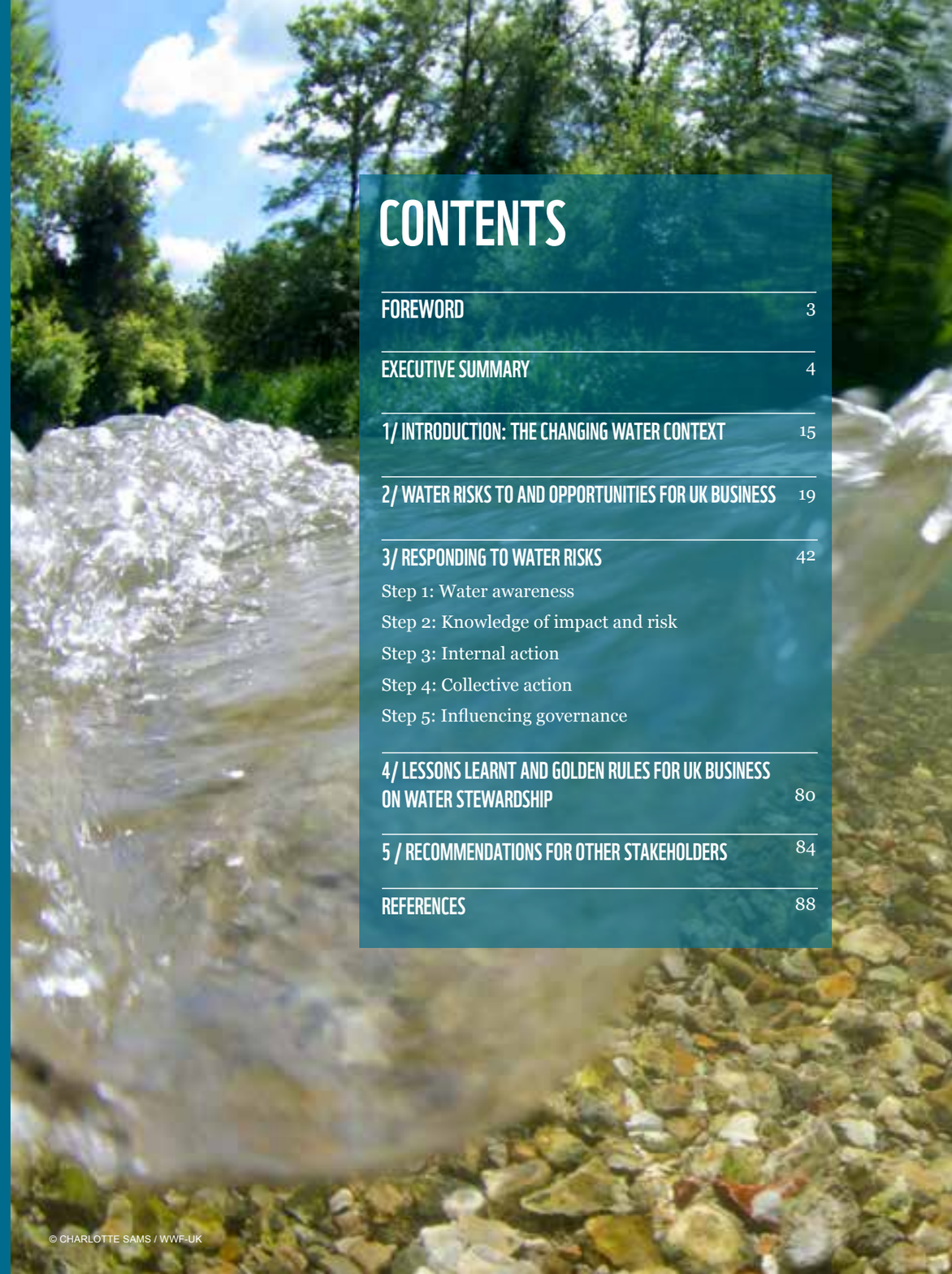
This report has been written by Claire Bramley, Lucy Lee, Belinda Fletcher, Kathy Hughes, Conor Linstead and Rose O'Neill on behalf of WWF-UK with help and assistance from many people in WWF's international network and those working externally in business and government on water stewardship. This report draws from two new reports commissioned by WWF-UK. The first written by Anthesis[1] looks at the international water risk to UK from imports and the second written by Artesia[2] offers water stewardship resources to provide the rationale for private sector engagement in the Water Framework Directive. This is a WWF-UK report, however, and does not necessarily reflect the view of each of the contributors.

WWF's vision is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. WWF has been working on freshwater conservation, as part of that agenda, for over 50 years, protecting our precious freshwater habitats and the water resources they provide. From the Amazon, Ganges and Yangtze to the chalk streams of England, WWF work with governments, businesses and communities to encourage sustainable water resource management across the globe. WWF is a strong advocate for responsible private sector engagement on water issues. We have been working with companies to develop our concept of water stewardship since 2008, which serves to unite a wide set of stakeholders to support the sustainable management of water resources.

Find out more about WWF's water work at:
wwf.org.uk/waterstewardship or panda.org/ws

This report is part of an EC-funded project, WaterLIFE, which aims to restore rivers to good ecological health by supporting water stewardship by the private and third sectors. The three-year project, led by WWF-UK with the Rivers Trust and Westcountry Rivers Trust, is funded by the LIFE+ programme, the EU's environment fund. WaterLIFE will demonstrate how communities and companies can work alongside government to protect and restore our freshwater environment. The project will showcase how companies can take stewardship action to reduce the environmental impact of operations and supply chains. It will support local groups to engage in river basin planning and deliver solutions and it will support government implementation of the Water Framework Directive.

Find out more about WaterLIFE at www.waterlife.org.uk



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RIVER NAR, NORFOLK

FOREWORD

Will Day,
Sustainability Adviser
to PwC, Chairman of
Water and Sanitation for
the Urban Poor and a
WWF-UK Ambassador

Water matters. This may seem a trite statement and, in many drier countries than the UK, has been recognised for a long time, but there is a growing realisation that we can no longer take for granted that the rain will fall when and where we want it, and that there will be enough to meet our growing needs. Conversely, the expected increase in extreme weather events is likely to lead to significant increases in instances of flooding.

It's not just the quantity of water available that is becoming an issue, but the quality as well; and it is not just human demands that need to be met, but also the requirements of the ecosystems that rely on water; the health of which underpin both human wellbeing and commercial productivity.

There are plenty of reasons for this, and water users, be they businesses, water companies, farmers or communities are recognising that better water stewardship will be a vital ingredient of a more sustainable future.

The scale of the challenges posed by growing demand and a changing climate, to name but two, means that no single actor can achieve this alone. Instead, companies and other water users will need to engage with a range of other stakeholders to share the risk and develop practical, long-term solutions.

WATER STEWARDSHIP IS A NEW WAY OF THINKING ABOUT WATER MANAGEMENT

Water stewardship is a new way of thinking about water management. This report focuses on how water risks are already affecting businesses, and ways in which companies can contribute positively to reducing them. It sets out the rationale for action, both in the UK and internationally, and offers practical advice and case studies which describe how businesses can become better water stewards, and how collaboration, potentially with conservation NGOs like WWF, and with other water management institutions, can be an important element in helping to achieve improved sustainability in water management for all.

EXECUTIVE SUMMARY

We live in a world where business dependency on freshwater is increasingly being recognised and understood. We are also just beginning to appreciate the positive role business can play in overcoming the water challenges we face. WWF-UK has therefore produced this guide, based on its own science and experience of working with business, to help UK PLC play its part in the sustainable management of water resources.

COMPANIES IN THE UK ARE EXPOSED TO PHYSICAL, REGULATORY AND REPUTATIONAL WATER RISKS BOTH DOMESTICALLY AND INTERNATIONALLY

Globally our freshwater environment is under threat. Difficult choices lie ahead. We must find ways to meet our needs while maintaining other essential services that freshwater ecosystems deliver. To date, the natural environment is largely losing out in such trade-offs, for example WWF's *2014 Living Planet Index* shows that globally populations of freshwater species have declined by 76% since 1970[3], and latest Environment Agency data shows that just 17% of rivers in England meet the required Good Ecological Status[4]. Climate change impacts, such as increased weather variability and a greater frequency of floods and droughts, coupled with population growth and increasing consumption of water are likely to add further pressures.

Water risks to business are distributed unevenly. The scale and nature of the risks will vary from business to business depending on the sector and location among other factors. However the risks can generally be categorised as physical, regulatory and reputational. Each can ultimately pose a financial risk to the business. As such, water-related risks need to be addressed comprehensively as part of the strategic business planning processes.

Outside of the UK, we are seeing increasing interest from business on water. However stakeholder interviews with key businesses commissioned by WWF in 2011 demonstrated that general awareness of water stewardship actions in the UK context was low, with the impact of agricultural supply chains on water quality not fully apparent, and stakeholders unsure of the evidence, the impacts or how they could intervene.

Companies in the UK are, however, exposed to the range of risks noted earlier as a result of the management of the catchments in which they operate or source products from, both domestically and internationally. Domestically:

- Flooding can have significant financial impact on business because of either the damage caused directly by the flood (the loss of stock, damage to the premises etc) or direct impacts (such as the loss of access to basic services, such as water supply, waste water collection and treatment, electricity, roads and telecommunications). Businesses which can continue to operate may take months to recover and to return to normal trading.
- Water resources are already under pressure. The Environment Agency has shown that reliable supplies are not available for new business needs across much of the country[5].
- Diffuse pollution, largely from agriculture, is threatening the health of the UK's freshwater with a third of environmental failures attributed to the agricultural and land management industry[6].

AS FRESHWATER ECOSYSTEMS SUPPLY THE WATER FOR COMMUNITIES AND BUSINESS THE RISK IS SHARED

UK business is also exposed to a considerable amount of international water-related risk to operations, supply chains and investments. A new study conducted for WWF-UK in 2015[7] has looked at water risks to the production of our main imports. It identified that over 80% by value of the products the UK imports have a 'moderate' level of water risk when risk is averaged across all sourcing countries, with the remainder having a low water risk.

While no individual product category is at high risk (because sourcing from high risk countries is balanced out by sourcing the same product from low risk countries), the study found that 6% by value of the UK's imports come from high water risk countries.

The study also highlighted some key imports and source countries that have high water risk implications for the UK. For example China, India, Bangladesh and Pakistan – which account for almost 60% of our clothing imports, worth £9.7 billion – all have high risks across at least two water risk categories. In addition there are:

- high reputational water risks associated with metals imports
- regulatory or reputational risks for food products from Brazil and Argentina

- high reputational and regulatory water risks in China, a key trading partner for the UK

IT IS ESSENTIAL FOR A COMPANY TO MAP ITS OWN SUPPLY CHAIN TO UNDERSTAND ITS WATER RISK HOTSPOTS

It is important to consider whether there are local hotspots of high water risk in sourcing countries that are masked by looking at country averages. Approximately 40% by value of the UK's imports come from countries that have hotspots of high water risk (i.e. at least some river catchments in that country have high water risk). The most significant source countries, in terms of import value, with hotspots of high water risk are China, the US, Italy and Spain.

For individual companies to understand their water risk, therefore, it is essential that they map their own supply chains in some detail to understand whether the products they rely on come from water risk hotspots.

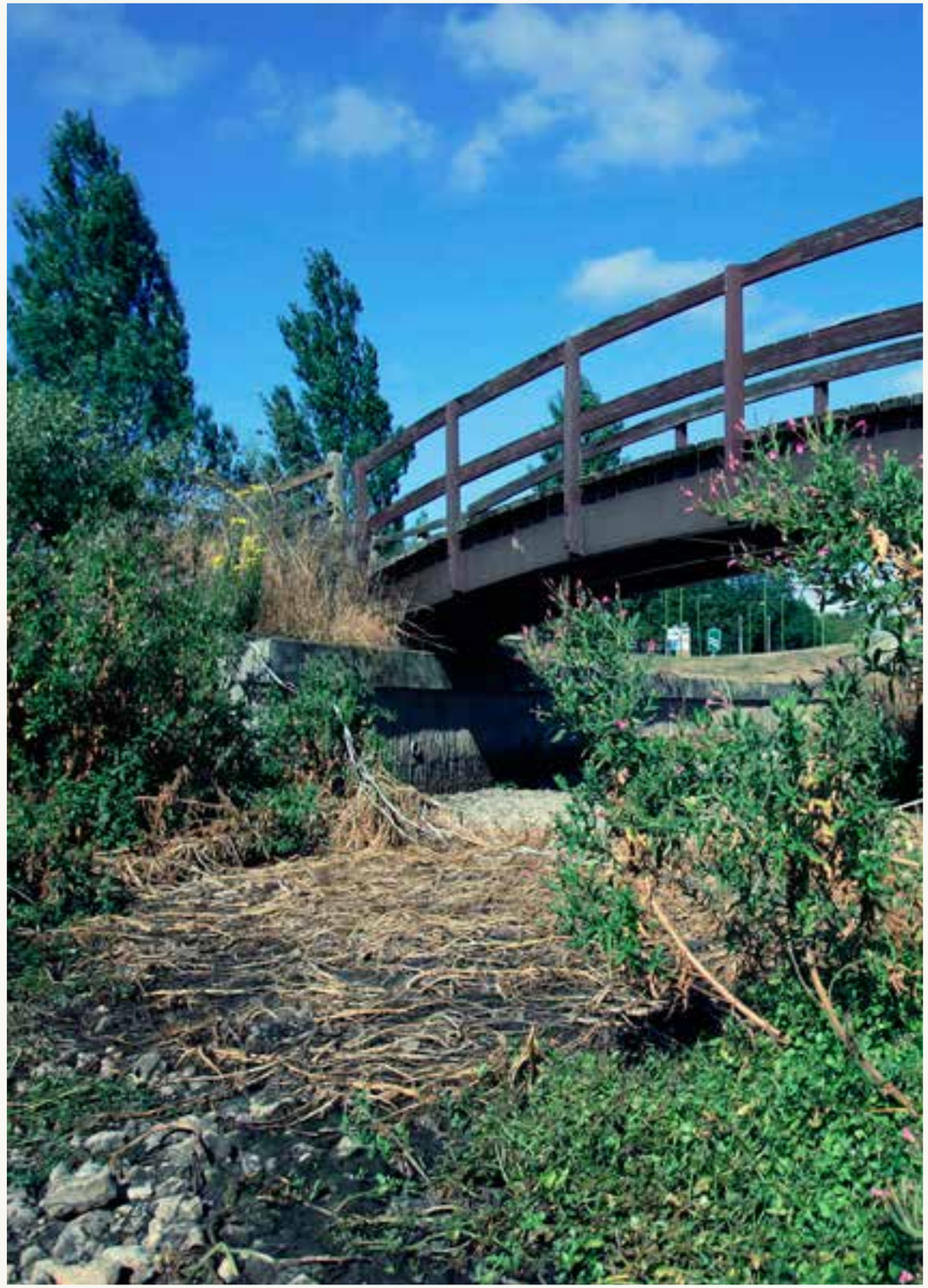
An interesting contradiction in how businesses are responding to the potential risks is highlighted in CDP's *2014 Global Water Report*[8]. While 68% of global 500 company respondents said that water poses a substantive risk to their business:

- Only 38% had conducted a risk assessment that included operations and supply chain.
- Only 21% of respondents from companies headquartered in the UK had conducted a risk assessment that took into account the river basin where they operate.

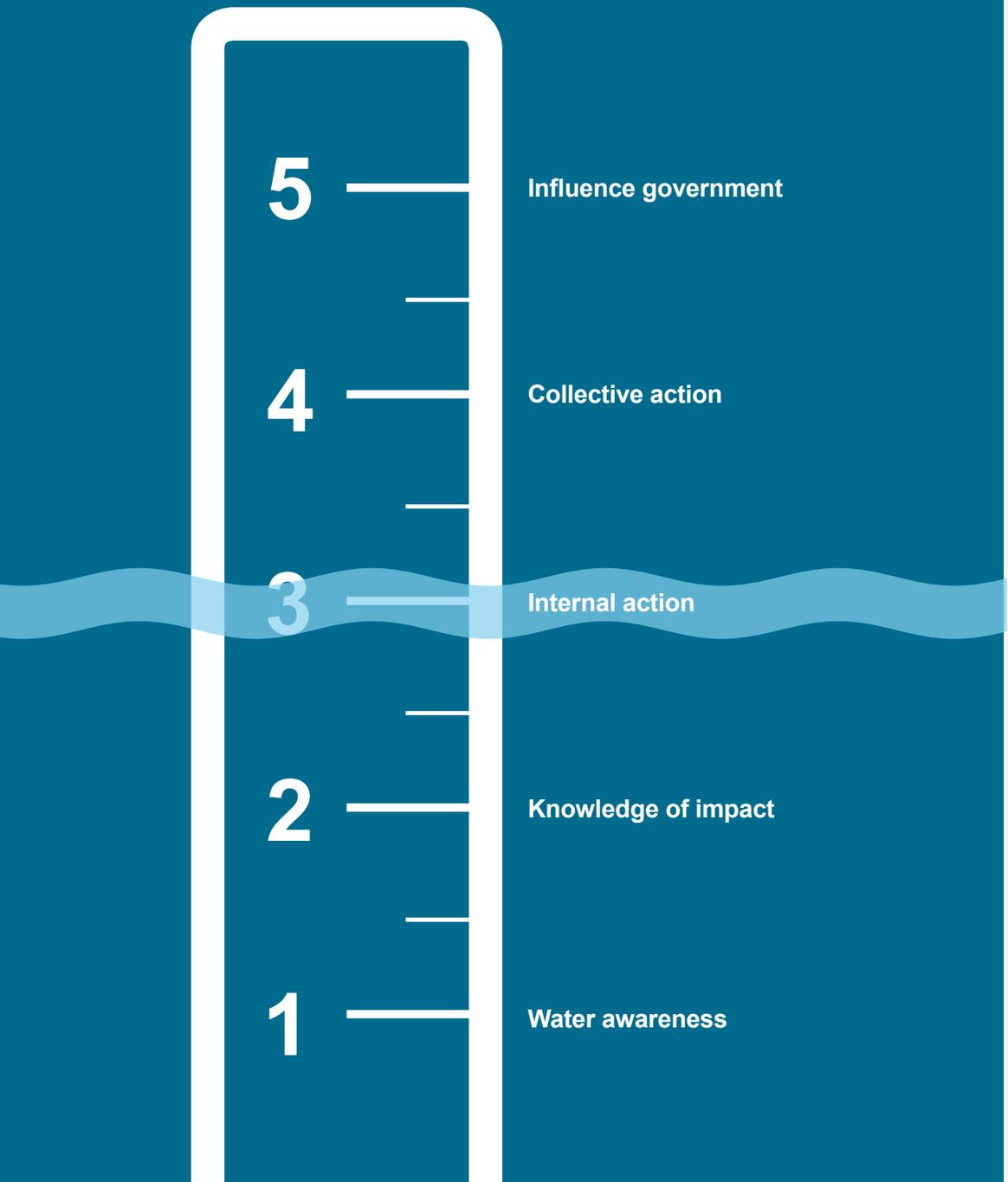
This highlights a clear gap between awareness of the issues and implementation of an appropriate strategy to deal with them. As freshwater ecosystems supply the water for communities and business the risk is shared. This provides companies with an incentive to invest in sustainable water management beyond their 'fence line' that benefits freshwater ecosystems and communities as it also manages business risk. Most companies however don't yet have a strategy or targets to work collectively to influence public policy to help drive the sustainable management of water resources.

To help bridge this gap, WWF-UK has produced this step by step guide so that companies can take action now to respond to the risks and reap the benefits. The guide:

1. provides an overview of the current state of global and national water resources and how they are currently being managed



DRIED UP BED OF RIVER MIMRAM, HERTFORDSHIRE



2. identifies the different types of water risks to business
3. explores how business in the UK is exposed to domestic water risks and risks associated with importing goods from around the globe
4. provides guidance on how companies can respond appropriately

The guide is structured around WWF's water stewardship framework, as illustrated in the diagram opposite. The framework sets out five steps to support a robust assessment of the different types of risks and actions that can be taken to respond.

The steps show a shift from management to stewardship – moving beyond issues over which a company has direct control to those where control is indirect. The measures, focus, engagement and complexity change considerably. Strategic engagement beyond the company's own 'four walls' will help to proactively manage risk rather than reactively responding to it.

STRATEGIC ENGAGEMENT BEYOND THE COMPANY'S OWN 'FOUR WALLS' WILL HELP TO PROACTIVELY MANAGE RISK RATHER THAN REACTIVELY RESPOND TO IT

The water stewardship steps are by no means linear, each step requires continuous improvement, and will need to be revisited over time.

Information on each of the steps in the guide is supported by case studies, both from the UK and around the world, highlighting action that is already being taken by business including:

- LEAF Marque and Conservation Grade's approach to influencing supplier practices (page 58)
- M&S and Molson Coors' work with other stakeholders to collectively manage the catchments in which they operate and source from (page 66)
- Coca-Cola and WWF-UK's action to positively influence the governance of water resources in the UK (page 74)

Building on the experience of companies engaging in water stewardship to date we have developed a set of 'golden rules' for businesses that are starting out or progressing along their water stewardship journey.

WATER STEWARDSHIP GOLDEN RULES

INVESTORS SHOULD ASSESS THE RISK ACROSS THEIR INVESTMENT PORTFOLIO AND PROACTIVELY ENGAGE THEIR CLIENTS TO MANAGE WATER RELATED RISKS

- Undertake a robust assessment of the water risks, establish priorities and ensure that action taken is strategic and targeted at addressing the priority risks identified.
- Create a clear and strong water strategy or policy that has leadership buy-in and make sure it is publicly available on the company's website.
- Consult staff and stakeholders in the development of the strategy/ policy and ensure there is buy-in across the organisation, including from the board, CEO and senior management.
- Recognise and make transparent decisions on trade-offs, for example between risk mitigation actions, water use and other environmental impacts (e.g., to manage greenhouse gas emissions, food security, etc.).
- Establish monitoring and evaluation processes to assess the impacts of any action. Identify suitable baselines and put in place targets that are focused on impacts (for business, for other water users, and for ecosystems and biodiversity) not just on activities.
- Go beyond water management. Efficiency and water quality are a great starting point, but don't neglect issues such as water governance, shared ecosystem services and climate change adaptation, especially those issues beyond the fence line that affect water risks.
- Identify the shared water challenges facing the catchments in which the company and supply chain operate.
- Partner with other stakeholders in shared responses (i.e. collective action). Work with allies who share the company's values and vision rather than convincing the nay-sayers or uninterested parties.
- Be engaged with catchment neighbours, supply chains, and also with pragmatic and trusted third parties, such as NGOs, to help facilitate dialogue.
- Ensure compliance with legislation, including by suppliers.
- Advocate strong governance and consistent, predictable legislation and be open about how the company is doing.
- Share good practice with all stakeholders, the business case for taking action and the lessons learnt.
- Drive transparency and disclose the company's actions through organisations such as CDP to demonstrate to investors, purchasers and government that the company is managing water risks and taking advantage of opportunities.
- Don't be afraid to innovate: water stewardship continues to evolve, and it's only by trialling different approaches that everyone can continually improve. Water stewardship is an adaptive and shared learning journey.

The guide finishes with recommendations for non-business stakeholders and those without direct business water risks who have a key role to play in driving the sustainable management of water resources, namely government and investors, as outlined below.

Finance

Investors should assess the water risk across their investment portfolio and proactively engage with their clients to manage water-related risks:

Assess risk across the investment portfolio

- Develop standards and policies for water risk analysis and impacts in internal decision-making processes.
- Identify key stakeholders and support the development of programmes of action to drive and support mitigation of these risks.
- Support international overseas efforts to develop public-private partnerships around basin stewardship in basins that have been identified as priority risks to the UK economy.
- Develop methodologies to translate water-related risks to business value at risk in cooperation with businesses and integrate this into financial decisions. Quantifying value at risk from water scarcity and quality is a crucial point for decision-making.
- Where appropriate, exclude clients from portfolios that do not appropriately address and manage water-related risks after actively engaging with them on a regular basis.
- Disclose water risk exposure and demonstrate water risk mitigation actions publicly.

Engage with clients to manage water-related risks

- Proactively support companies that are seeking to reduce water-related risks – reward and recognise water stewardship.
- Develop sector-specific sustainable water risk reduction strategies to address and provide technical assistance for risky clients and/or investments to ultimately mitigate risks together with strategic stakeholders on the ground.
- Adhere to initiatives such as the Equator Principles and/or the UNEP Finance Initiative's water stewardship scheme and develop industry-specific codes of practice when necessary.

UK government

- Foster enabling conditions for corporate water stewardship in order to mitigate water risks to UK businesses associated with producing goods both at home and overseas.
- Take action to reduce the risk associated with producing goods within the UK and associated with imported goods:

THE UK GOVERNMENT SHOULD DO MORE TO FOSTER ENABLING CONDITIONS FOR CORPORATE WATER STEWARDSHIP

To reduce risks associated with producing goods within the UK

- The UK government should share the evidence base, for example the Environment Agency's water and agriculture monitoring, widely with business and explore opportunities to help businesses identify key hotspots (e.g. showing impacts related to product type).
- Ensure there is a strong framework for the sustainable management of water, for example, by:
  - targeting efforts to bring non-compliant farmers in England into compliance and that ensuring basic legislation is sufficient to support further achievement of good heath, as defined by the Water Framework Directive
  - reforming abstraction licensing to ensure environmental needs are met as a function of every licence and that abstraction charges encourage efficient use
  - continuing investment in the Catchment Based Approach including by exploring ways to encourage private sector support and funding
- Provide farm advice and incentives to encourage better water management practices, through ongoing support of Catchment Sensitive Farming and targeted Countryside Stewardship, encouraging knowledge exchange with private sector schemes and enabling private sector matched-funding.

To reduce risks associated with imported goods

- Establish a comprehensive understanding of the international water risks the UK economy is exposed to, for example through reviewing water risk data that is disclosed to CDP.
- Identify key stakeholders and support the development of programmes of action to drive and support mitigation of these risks.
- Support international overseas efforts to develop public-private partnerships around basin stewardship in basins that have been identified as priority risks to the UK economy.
- Support UK banking regulators to robustly screen water risks and support opportunities to mitigate risks.

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SHRIMP CAGES ON A FISHING BOAT. ZHANGDU LAKE AREA, HUBEI PROVINCE, CHINA

1

INTRODUCTION:
THE CHANGING WATER CONTEXT

Water is the essence of all life. Our freshwater ecosystems supply the water that people and business rely on. But these ecosystems are under threat, placing pressure on the sustainability of our water resources.

Managing water is now recognised as one of the key societal, environmental and economic challenges of the 21st century. In fact, the World Economic Forum's *2015 Global Risk Report* ranked water crises as the top risk to global growth in terms of impact, rising from third position in 2014[9].

These water crises are a result of water scarcity – both arising naturally or as a result of the unsustainable management of water resources, or in the majority of cases a combination of both. In addition to water scarcity our water resources are under threat because of increasing levels of pollution.

Water scarcity

MANAGING WATER IS NOW RECOGNISED AS ONE OF THE KEY SOCIETAL, ENVIRONMENTAL AND ECONOMIC CHALLENGES OF THE 21ST CENTURY

Globally, 1.7 billion people are suffering from chronically high water scarcity and nearly 80% of the world's population is already exposed to high levels of threat to water security[10]. The current level of risk is only likely to increase in future as a result of global trends, the most significant of which are climate change and population growth.

Climate change will not only lead to a greater weather variability and increased frequency of extreme weather events but it will also influence water demand. Long-term forecasts suggest demand for irrigation in the UK could increase by up to 160% due to climate change[11].

At the same time our population is growing. By 2050 the world's population will reach a predicted 9.6 billion[12]. The population of England and Wales is forecast to increase by 9.6 million people by the 2030s, with south-east England, which is already under significant water stress, facing rises of over 40%[13].

Currently a little over half (54%) of the world's accessible runoff is diverted for human consumption – and of this, nine-tenths is used for agriculture[14]. The Food and Agricultural Organization projects that 60% more food will be needed by 2050[15] potentially doubling the amount of water that will be consumed through evaporation during crop production[16].

IN 16 YEARS, THE PLANET MAY MEET ONLY 60% OF THE GLOBAL DEMAND FOR WATER

Changing lifestyles (for example the shift towards increasing consumption of animal protein, the water footprint of which is much greater than a vegetarian diet) are likely to result in much higher per capita water footprints further increasing demand. According to the UN, in 16 years the planet may meet only 60% of the global demand for water[17].

Water quality

We are increasingly polluting our water resources. The sources of this pollution varies dependent on the location. In intensively farmed regions, nutrients, pesticides and soils from agriculture pollute rivers and cause adverse impacts on ecosystems.

In intensively farmed regions, nutrients, pesticides and soils from agriculture pollute rivers and cause adverse impacts on ecosystems

In many countries water treatment infrastructure is often not adequate to treat waste water adding a compounding pressure. At the end of 2011 2.5 billion people lacked adequate sanitation facilities (namely access to toilet facilities to ensure the safe disposal of human waste)[18]. An estimated 80% of all waste water in developing countries is discharged untreated into wetlands, rivers, lakes or oceans[19].

The impact of pollution is exacerbated in situations where we take too much water (over-abstraction). Where the volume of receiving water is low, the relative concentration of polluting substance will be higher and consequently its impact greater. The reduction in water pollution therefore relies not only on preventing potentially polluting substances entering water bodies but also on the amount of water we use[20].

The impact of water scarcity and poor water quality

Our unsustainable exploitation of water resources is already impacting on freshwater ecosystems, communities and the economy. WWF's 2014 Living Planet Index shows that globally populations of freshwater species have declined by 76% since 1970[21] Latest Environment Agency data shows that just 17% of rivers in England meet the required Good Ecological Status[22].

US $63 TRILLION WORTH OF WATER PRODUCTIVITY WILL BE PUT AT RISK BY 2015 IF WE FOLLOW A "BUSINESS AS USUAL" APPROACH TO WATER MANAGEMENT

According to analysis by the International Food Policy Research Institute, approximately US$63 trillion worth of water productivity (the net return for a unit of water used) will be put at risk by 2050 if we follow a "business as usual" approach to water management practices. That is equivalent to 1.5 times the size of today's entire global economy. However, if sustainable behaviours and practices are adopted, more than one billion people and approximately US$17 trillion of GDP could escape exposure to risks and challenges from severe water scarcity, more than the entire GDP of the United States in 2010[23].

We need a step change in the way we manage water to avoid these costs. The global nature of the risks means that no single company, sector of society or government can take action to ensure a water-secure future. Coordinated collective action is needed if we are to manage water sustainably to protect the vitality of global communities, our shared prosperity and the freshwater ecosystems on which both rely.

Companies that respond to these risks, not only put themselves in a position of competitive advantage, but their solutions themselves can in many cases actually become profit centres. The knowledge of how to respond to water issues in a profitable manner is of value to other businesses and can be offered as a service. It may also drive innovation that can further spur on profitability for the company. 75% of Global 500 respondents to CDP in 2014 identified opportunities from water[24].

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WWF, NORFOLK RIVERS TRUST, COCA-COLA AND BRITISH SUGAR VISITING THE RIVER NAR TO UNDERSTAND THE IMPACT OF SUGAR BEET

2 WATER RISKS TO AND OPPORTUNITIES FOR UK BUSINESS

The types of business water risks and opportunities

As water issues are becoming increasingly acute businesses are starting to experience substantive water risks. As a result water risks and impacts on business are getting more media coverage increasing awareness of the risks. CDP's 2014 global water report[25] found that:

- 53% of Global 500 companies have already suffered detrimental impacts as a result of water, a 40% increase since 2011.
- 68% report exposure to substantive water risks, 43% of which are anticipated to impact now or in the next three years.
- Almost one-quarter (22%) report that water could limit the growth of their business, and one-third expect that constraints will be felt in the next 12 months.
- Investors are increasingly recognising the risks and undertaking more in depth scrutiny of companies' actions. There has been a 318% increase in CDP investor signatories to the water programme between 2010 and 2014.

53% OF GLOBAL 500 RESPONDENTS TO CDP HAVE SUFFERED DETRIMENTAL IMPACTS AS A RESULT OF WATER

The scale and nature of these risks will vary from business to business, depending on the sector and location, among many other factors. However, these can generally be categorised as:

- physical risk
- regulatory risk
- reputational risk

Each of these ultimately poses a financial risk to the business – which is explored in more detail in the following sections of this guide. As such, water-related risks need to be addressed comprehensively as part of the strategic business planning processes.

However, with risk comes opportunity. Understanding and addressing these issues early provides opportunities to:

- raise the profile and improve trust in a business's brand with consumers, investors or customers and help to differentiate itself from the competition
- reduce costs and support long-term revenue generation, for example by helping to ensure long-term security of supply
- enhance a social license to operate in the area from which the business is sourcing water, particularly if it is selling products and services in local communities

An overview of the physical water risks and opportunities

Risks

THE ENVIRONMENT AGENCY HAS SHOWN THAT WATER RESOURCES ARE ALREADY UNDER PRESSURE IN THE UK

Physical water risks occur when a lack of water, or poor water quality, directly affects business operations. This can either be through a natural occurrence or the result of unsustainable management of water resources; in many cases it is a combination of the two. For example Sao Paulo is experiencing its worst drought for 80 years, which has seen the main reservoir for the city reduced to 6% of its capacity[26]. Although declining water supplies have been a concern since 2014, authorities have resisted rationing water. A recent article by Bloomberg highlighted that although the drought is a problem, the major issue is that the government and utility hasn't prepared for it[27]. While the state government debates whether to introduce rationing – consisting of two days of water followed by four days without – the reality is that millions of people are getting just a few hours of water per day, with many struggling with none at all for days on end[28].

Poor water quality can impact the suitability of the water for certain business users

The introduction to this report highlighted the water scarcity challenges globally to which the UK is exposed through its supply chain. But this problem is not restricted to just those countries where water is scarce. The Environment Agency has shown that water resources are already under pressure in the UK, with reliable supplies not available for new business needs across much of the country and over-abstraction harming the ecological health of many catchments. The Agency has also warned that more frequent and extreme drought is more likely as the climate changes and that much of the country – including the north and west – will become more water scarce[29].

Poor water quality can impact on the suitability of the water for certain business uses. Where this is the case the business will either experience increased water treatment costs and/or there will be an impact on product quality. For example:

- SABMiller found that high sediment loads in the water being used by its Bogotá brewery meant higher treatment costs for the water authority, which were passed on as higher water prices to the company and other water users[30]. As a result, SABMiller has partnered with other stakeholders in the surrounding catchment to change the poor land management practices, such as overgrazing, that were increasing erosion in the catchment.
- Vittel (owned by Nestlé Waters) sells over one million bottles of mineral water every year in over 70 countries. Maintaining high water quality is essential to the business as French legislation prohibits any treatment of 'natural mineral water'. Yet, in the early 1980s concerns were raised about increasing levels of nitrates in the company's source aquifer. In response the company worked with the Rhine Meuse River Basin Agency, the French National Institute of Agronomic Research and the dairy farms overlying the aquifer to change the entire farming system and land management practices, and reduce nitrate pollution. Farmers reverted to extensive cattle raising and abandoned corn cultivation. They reduced fertiliser use, applied manure at optimal rates, improved animal waste management and in doing so reduced nitrate input and improved the filtration capacity of the land.

  To encourage farmers to participate, Vittel established a Payment for Environmental Services (PES) scheme, implemented by an intermediary institution located in the area. The PES included free technical advice, a per hectare subsidy to compensate for initial investment and income loss, and payments for new equipment. Farmers had to engage in long-term contracts (up to 30 years). It took 10 years to convince farmers to change practices but by 2004 all 26 farms in the area had adopted the new farming practices resulting in 92% of the basin being protected, as well as improvements for biodiversity. Surface and ground water quality are monitored daily and on-farm practices are also monitored

WATER TREATMENT COSTS OF BETWEEN £300M AND £1 BILLION COULD BE AVOIDED IF THE WATER SECTOR ADOPTED CATCHMENT APPROACHES MORE WIDELY

to ensure compliance[31]. To ensure sustainability of the results, Nestlé Waters then engaged with the non-farm sector and built partnerships with the municipalities. It is now leading a new vision for local development and spearheading innovative multi actor partnerships across sectors.

Opportunities

Managing a lack of water and poor water quality provides a number of opportunities, including:

- **Reduced water supply and energy costs:** Improving water efficiency will lead to cost savings for many businesses. In England around 85% of farmers have taken action to conserve water for crops that need to be irrigated (such as strawberries and potatoes), 55% of them for financial reasons[32]. Reducing water use can also lead to significant energy savings for example where water requires pumping and heating.

BUSINESSES THAT RELY ON UK AGRICULTURE COULD ENGAGE WITH THEIR MAJOR WATER SUPPLIERS AND INVESTIGATE WAYS THEY CAN WORK TOGETHER FOR MUTUAL BENEFIT

- **Reduced water treatment costs:** UK water companies have invested in on-farm measures or paid farmers to take land out of production in order to improve drinking water quality by tackling pollution at source, rather than through expensive treatment facilities (commonly known as a 'catchment management approach'). Research undertaken by Indepen estimated that between £300 million and £1 billion of cost to treat water could be avoided by the water sector's adoption of wider catchment approaches. There are also positive environmental outcomes that can accrue including contributing to meeting the requirements of the Water Framework Directive, flood management, biodiversity, recreation and reduced carbon emissions and generating new income streams for other farmers, land users and others[33]. Businesses that rely on UK agriculture could engage with their major water suppliers and investigate ways they can work together for mutual benefit.

- **Markets for new products:** For example in reporting to CDP Unilever highlighted the development of new water-efficient products and services to help consumers in water-stressed cities and regions. They are focusing on creating innovations and campaigns which will meet the water needs of lower-income, urban consumers in developing countries.

An overview of the regulatory risks and opportunities

Risks

IN DEVELOPING COUNTRIES THERE MAY BE A LACK OF CAPACITY IN WATER GOVERNANCE INSTITUTIONS TO DEVELOP AND IMPLEMENT ROBUST POLICIES FOR WATER RESOURCE MANAGEMENT

Inconsistent regulation presents a source of uncertainty for business. Regulatory risk tends to be greater outside of the UK and Europe where there is a strong regulatory framework. In developing countries there may be a lack of capacity in water governance institutions to develop and implement robust policies for water resource management which may result in unpredictable regulatory crackdowns.

Water risks to businesses can arise even if water is abundant at basin scale where:

- one or more sectors' needs are prioritised over another's (e.g. public water supply)
- there is an insufficient allocation of water
- pollution leads to poor water quality that isn't suitable for business requirements

There is compelling evidence that many rivers fail to meet ecological standards set by the EU Water Framework Directive as a result of food and drink production. Diffuse pollution, largely from agriculture, is threatening the health of the UK's fresh water. In England and Wales just 17% of rivers are in a healthy ecological state[34], and a third of all the pressures causing this failure are attributed to agricultural and land management industries[35]. The European Commission has recommended that the UK government put in place basic measures to address these failures. Those identified as responsible face the risk of regulation. Recent research for WWF-UK[36] has also shown that non-compliance with existing regulations is a real issue, with on average 20-30% of farmers failing to comply with legislation and mandatory standards, with failure to comply rates as high as 80% for some compulsory measures, such as ensuring cover crops are in place over winter months to reduce soil and nutrient losses.

Under a changing climate, the increasing likelihood of droughts may increase exposure to regulatory risks in the UK, as there is likely to be a greater frequency of restrictions on abstraction of water to comply with abstraction licences. In addition the government is considering reforming abstraction licensing to ensure it is sustainable and fit for purpose as the climate changes, presenting uncertainty for abstractors over their future allocation of water in any reformed regime.

In an international context, regulatory actions by governments to address poorly performing businesses can cause sudden disruptions of supply chains. For example in February 2015 the Uttar Pradesh Pollution Control Board closed 98 tanneries in Kanpur, nearly one third of the total tanneries operating in the city[37], due to long-running breaches of water quality legislation. As a key centre for leather exports from India, this is likely to disrupt the supply chains of international retailers sourcing from the area.

Opportunities

Stewardship practices and transparency help to build trust with enforcement agencies.

WORKING TO STRENGTHEN GOVERNANCE WHERE WATER IS NOT BEING MANAGED EFFECTIVELY IS CRUCIAL TO MANAGE SHARED WATER RISKS

Awareness of regulatory risks along the supply chain can help inform effective proactive action to mitigate the risk and avoid any impact that would result in closure and therefore the cost of having to relocate supply. Working to strengthen governance where water is not being managed effectively is crucial to help reduce shared water risks.

Regulation also offers an opportunity as it can 'level the playing field', meaning that those who are doing the right thing are not undercut by those who are causing the most environmental harm. It can also potentially leverage wider action and funding. For example, the Common Agricultural Policy (CAP) is the key financial instrument and driver for change in agriculture in Europe. Aligning public-funded CAP payments with measures to mitigate water scarcity and quality risks is a potential regulatory opportunity that would reduce business water risks without requiring additional business spend.

An overview of the reputational risks and opportunities

Risks

REPUTATIONAL RISKS OCCUR WHEN BUSINESSES ARE ASSOCIATED WITH THE IMPACTS OF POOR WATER MANAGEMENT ON COMMUNITIES OR ECOSYSTEMS

How businesses manage, or are perceived to be managing, water issues can pose a threat to their reputation. Reputational risks occur when businesses are associated with the impacts of poor water management on communities or ecosystems, or are seen to be appropriating more than their fair share of water. In many cases, customers already expect companies to be taking action to ensure production does not damage the environment or affect local communities' access to water. There is potential for backlash if impacts of poor water management are exposed. For example:

- In 2011 Greenpeace launched the Dirty Laundry campaign on the discharge of toxic chemicals in textiles manufacturing, hazardous residues in clothing, and their impacts on water quality. They identified high profile high street brands that source from polluting factories and that have high residual levels of hazardous chemicals in their clothing. As a result, companies including Adidas and Burberry have adopted commitments on water quality impacts in their value chains[38].
- In 2010 the a study undertaken by development charity Progressio found that industrial production of asparagus in Peru's Ica Valley was depleting the area's water resources to such an extent that smaller farmers and local families were finding their wells running dry. Huge increases in water demand to support this agricultural expansion were linked to negative economic impacts on small-and medium-scale farmers, contributing to water scarcity and inequity for some of the poorest communities in Peru, fuelling social conflict and increasing vulnerability to climate change across the Ica Valley and beyond[39].
- In 2007, a major *Guardian* article highlighted the impact of the cut flower industry around Kenya's Lake Naivasha, which provides a significant proportion of flowers imported into the UK by supermarkets. The potential reputational risk catalysed UK and other EU retailers to engage with their suppliers around Lake Naivasha and support initiatives to establish a more sustainable water management regime for the lake.

Opportunities

For UK supermarkets, food and drink manufacturers and other brands, there is an opportunity for reputational benefit by taking proactive action to tackle water and to stand out from the market as a more sustainable choice (both in terms of stakeholder and customer communications).

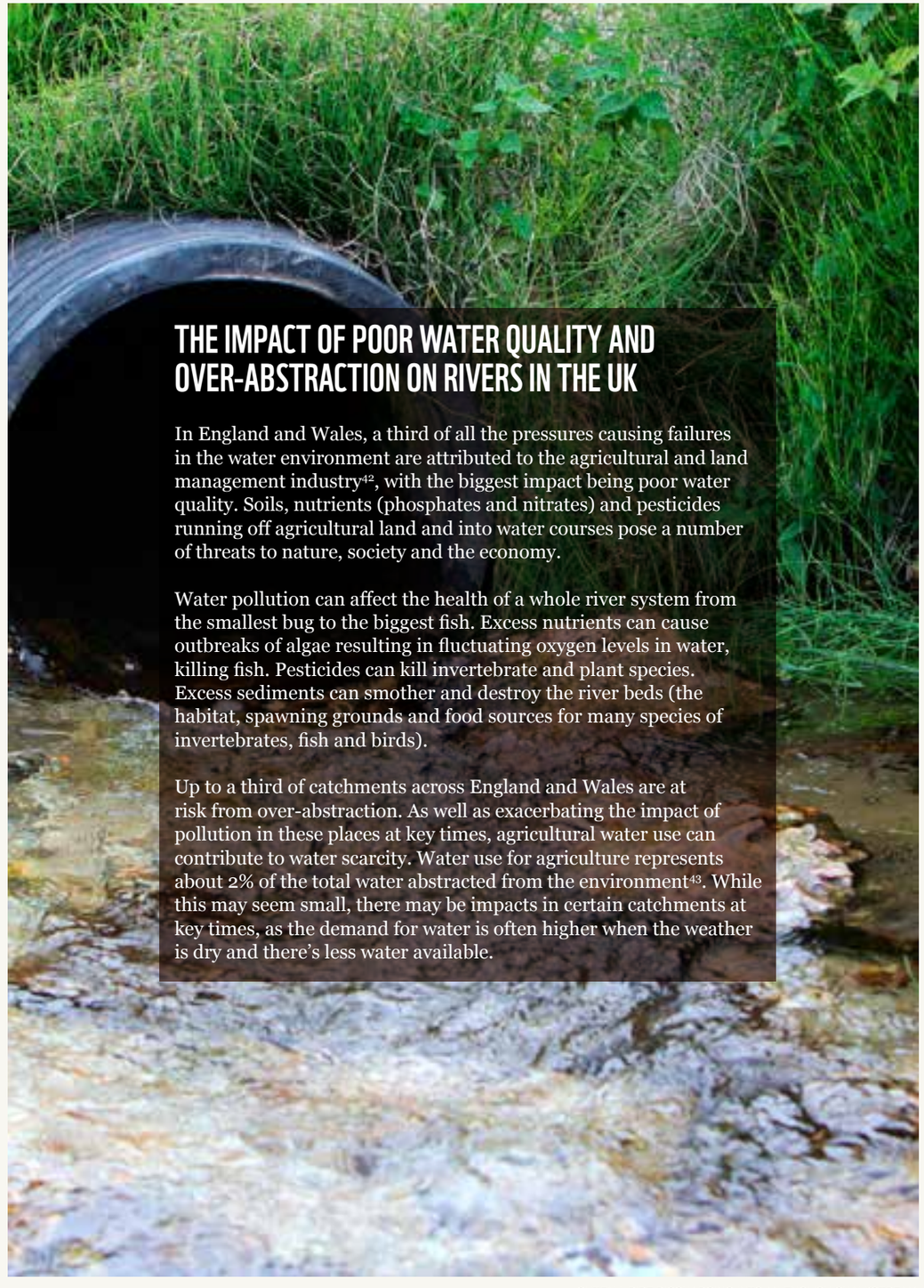
For example, in information disclosed via CDP[40], Associated British Foods highlighted that:

"Illovo's (Africa's leading sugar producer) customers, funders and potential investors are increasingly interested in the environmental impact of products and services. Illovo places emphasis not only on operating in a sustainable manner but also maintaining an open and continuous dialogue with stakeholders to support positive brand reputation."

How water risks affect UK business

THE SUPPLY CHAIN IS A KEY COMPONENT OF THE CORPORATE WATER FOOTPRINT

UK companies both affect and are affected by physical, regulatory and reputational water risks in the places they source from and sell to, be it here in the UK or from around the world. The degree and nature of risk a UK company faces varies depending on, for example, where their water footprint is distributed across the value chain, how much water they and their supply-chain partners use if operations are located in areas prone to water stress or water quality issues and the degree to which they contribute to over-abstraction and pollution. Despite this variation the supply chain is a key component of the corporate water footprint. For example a study carried out by WWF and SABMiller identified that over 90% of SABMiller's water footprint for producing a litre of beer was located in crop cultivation, with only 10% in direct operations (crop processing, brewing and bottling and waste elements). This demonstrates the importance of engaging the supply chain in the management of a company's physical water risks[41].



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THE IMPACT OF POOR WATER QUALITY AND OVER-ABSTRACTION ON RIVERS IN THE UK

In England and Wales, a third of all the pressures causing failures in the water environment are attributed to the agricultural and land management industry[42], with the biggest impact being poor water quality. Soils, nutrients (phosphates and nitrates) and pesticides running off agricultural land and into water courses pose a number of threats to nature, society and the economy.

Water pollution can affect the health of a whole river system from the smallest bug to the biggest fish. Excess nutrients can cause outbreaks of algae resulting in fluctuating oxygen levels in water, killing fish. Pesticides can kill invertebrate and plant species. Excess sediments can smother and destroy the river beds (the habitat, spawning grounds and food sources for many species of invertebrates, fish and birds).

Up to a third of catchments across England and Wales are at risk from over-abstraction. As well as exacerbating the impact of pollution in these places at key times, agricultural water use can contribute to water scarcity. Water use for agriculture represents about 2% of the total water abstracted from the environment[43]. While this may seem small, there may be impacts in certain catchments at key times, as the demand for water is often higher when the weather is dry and there's less water available.

OUTFALL PIPE DISCHARGING INTO AN ENGLISH CHALKSTREAM

Water risks to UK businesses associated with producing goods within the UK

Water quality

The impact of poor water quality on freshwater ecosystems can present a physical water risk to some business operations. For example:

A quarter of catchments that influence drinking water quality are contaminated with pesticides, nitrogen compounds and algae

- A quarter of catchments that influence drinking water quality are contaminated with pesticides, nitrogen compounds and algae[44]. This contamination leads to increased water company treatment costs and, if severe, can lead to the source having to be removed from supply, placing pressure on remaining water resources. In some instances, the problem is so significant that the Drinking Water Inspectorate has been forced to issue a derogation to allow water companies to continue to put contaminated water into supply, even though it compromises public health standards. In fact, 83 water treatment works currently have exemptions in place to allow them to continue to supply water that is "not wholesome due to the presence of metaldehyde" (a slug pellet[45]).

- Forty-four bathing waters (beaches) and a quarter of shellfish fisheries pose a risk to public health due to contamination from faecal bacteria washed from livestock farms into the sea[46]. Having a beach declared unsafe for swimming, or a shell-fishery unsafe for human consumption, can have a significant impact on local tourism, and recreational and fishing businesses.

While there are some notable exceptions, in general, the potential disruption to business operations in the UK from poor water quality – and hence motivation to engage in water stewardship activities – is low. This is because treatment costs for water supplies are generally a small fraction of overall costs; or because water is supplied through the public water supply system and therefore treatment costs are shared and diffuse.

THE MAIN WATER RISKS TO UK BUSINESS ACTIVITIES IN RELATION TO POOR WATER QUALITY ARE LIKELY TO BE THROUGH POTENTIAL REPUTATIONAL DAMAGE

The main water risks to UK business activities in relation to poor water quality are more likely to be through the potential reputational damage of being publically identified as being responsible for, or associated with, acute water pollution events resulting from effluent discharges or poor practices, both directly and, for brands and retailers in particular, in their supply chain.

Flooding

Flooding can have a severe impact on businesses operating and sourcing from the UK. Many businesses fail in the aftermath of a flood because of either the damage caused directly by the flood (the loss of stock, damage to the premises etc) or direct impacts (such as the loss of access to basic services, such as water supply, waste water collection and treatment, electricity, roads and telecommunications). Businesses which can continue to operate may take months to recover and to return to normal trading. This may be due loss of documentation leading to delays in tracing orders, completing insurance claims and issuing invoices or the impact of other indirect effects such as increased business expenses; lack of demand; temporary loss of market share to competitors; reduced staff availability due to travel difficulties or involvement in repairing damage to their own homes; loss of productivity and loss of supplies. For many businesses these impacts can be catastrophic and many may never reopen.

Loss of critical infrastructure services due to flooding can also have knock on impacts of businesses outside of the flooded area. For example, in the summer of 2007 Gloucestershire experienced widespread flooding. In addition to extensive damage to homes, business disruption was significant with 500 businesses affected, 10,000 motorists were stranded on county roads, including the M5 where many people remained overnight and 500 commuters were stranded at Gloucester train station[47]. Both the Mythe Water Treatment Works and the Castlemead substation were included in the properties flooding, restricting water and power to homes and business without and outside of the floodplain.

Water scarcity

Meanwhile, water scarcity is already a cause for concern in certain parts of the country such as East Anglia, where farmers have begun to work collectively to ensure the long-term security of supply in catchments where water is most scarce. To date, the business case for reducing water scarcity impacts in the UK has largely focused on improving water efficiency in manufacturing, agriculture and processing operations only, which in turn reduces costs on water bills. The 2014 Water Act will help to support this by allowing for

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KINGFISHER, FRESHWATER SPECIES

the introduction of wider competition in the water industry, allowing businesses to shop around for improved services to tackle inefficient use and reduce costs. Yet while improving water efficiency is a useful first step, this may incur new risks – for example if the government cuts water allocation as a result. The long-term sustainability of water resources will require collective action to ensure that catchments are managed effectively.

Moreover, climate change is expected to increase the frequency of drought in the UK. As well as having significant impacts on the environment, such as interrupting breeding or killing off many species of fish, plants and invertebrates – drought can affect business too:

- In 2012, water abstraction restrictions were imposed on many farmers and hosepipe bans were introduced for the public in many areas. Before the drought broke in spring 2012, restrictions for commercial customers of water companies (such as food and beverage manufacturers) were also a real possibility in order to maintain public water supplies.
- In November 2011, following a summer drought, around 200 farmers across central and eastern England could not abstract water because of conditions on their licences, impacting crop production[48].

THE IMPACT OF FOOD PRODUCTION ON AN ENGLISH CHALK STREAM: THE RIVER FROME

Background

The River Frome is one of England's unique chalk streams. It is one of the country's few salmon rivers, and is designated a national Site of Special Scientific Interest (SSSI) by virtue of its rare and rich diversity of plants. The mouth of the river, Poole Harbour, is designated as a EU Special Protection Area and a wetland of international importance.

Pollution of the river

However, the Frome is a river on the edge. It's failing to meet ecological standards set by the EU Water Framework Directive and SSSI conservation targets. Sediment, nitrate and phosphate pollution are key causes. High levels of nitrate contaminate public drinking water supplies, with at least one public water supply abstraction at risk of shutting down in the interests of public health[49]. Nitrates are also having significant impacts on Poole Harbour, causing widespread growth of algae that deprives the water of oxygen, and kills fish and shellfish. This risks damaging commercial fisheries[49, 50], while public distaste for the foul-smelling 'green slime' threatens the harbour's recreational industries[51]. Studies have been able to isolate the sources of the nitrate that are predominantly causing the problem. While 15% comes from sewage treatment works, the large majority – 80% – has been shown to originate from agricultural fertiliser and manure run-off[52]. A step change is needed in agricultural practices to fix the problem.

There are about 1,000 arable and livestock farms in the Frome catchment. Farmers can take a number of measures to reduce the risk of pollution. For example, one Frome farmer has renovated a stream crossing to reduce run-off caused by animals and machinery, put up fences to restrict livestock access to the river, and taken steps to prevent run-off of manure from animal handling areas.

However, such practices are not yet widespread across the catchment, and a voluntary approach may not be sufficient to deliver the change needed. Interviews with farmers suggest that lack of action is due to poor understanding, scepticism about agriculture's role in causing problems, and lack of money to invest in mitigation measures[53].

Potential opportunities for UK business

- **Reputational opportunity:** Taking proactive action to address pollution in Poole Harbour is likely to have a positive impact on public perception of the business.
- **Cost savings:** Sustainable farming practices that reduce sediment and pollution run-off may lead to cost savings, for example in reduced fertiliser costs.
- **Reduced risk of regulation:** Proactive voluntary action will reduce the risk of being regulated.

COWS GRAZING BY THE RIVER FROME, DORSET

Water risks to UK businesses associated with importing goods from around the world

THE UK ECONOMY IS HEAVILY RELIANT ON IMPORTS. IN 2013 THE VALUE OF PRODUCTS IMPORTED WAS £420 BILLION - EQUIVALENT TO 32% OF THE TOTAL UK GDP

As an open economy, UK businesses trade with over 180 countries worldwide and the UK is the seventh largest importer, by total value of goods imported[54]. The UK economy is therefore heavily dependent on imports. In 2013, the total value of products imported was £420 billion – equivalent to 32% of the total UK GDP[55]. Overall, 62% of the UK's total water footprint is in other nations[56].

A new study commissioned by WWF-UK in 2015[57] identified the extent to which the UK is exposed to water risk through its imports. The summary of the key findings is presented here and the full report is available on WWF's website.

The study found that over 80% by value of the products the UK imports have a 'moderate' level of water risk when risk is averaged across all sourcing countries, with the remainder having a low water risk. While no individual product category is at high risk (because sourcing from high risk countries is balanced out by sourcing the same product from low risk countries), we found that 6% by value of the UK's imports come from high water risk countries. The highest overall risk is associated with finished products, such as clothing (including footwear), appliances (e.g. washing machines, dishwashers), technology products (e.g. computers, mobile phones, televisions), and products made of basic metals (e.g. railway track, pipes).

IT IS ESSENTIAL THAT A COMPANY MAPS ITS OWN SUPPLY CHAINS TO UNDERSTAND ITS PARTICULAR WATER RISK HOTSPOTS

In making a global assessment of import water risks for the UK, by necessity the study looks at country-average water risks across broad product categories. While this approach gives a robust assessment of the extent to which the UK overall is exposed to water risks, this averaging can over- or under-represent the real risks at a local level. For particular supply chains actual sourcing areas may have quite different water risk profiles from the country average.

For example, imported apples have a higher water risk than agricultural crops in general, and apples from South Africa have a still higher risk, but all still are within the 'medium risk' category[58]. However, apples sourced from the Western Cape of South Africa, a key area for production, have a high water risk. Given the diversity of sourcing locations for the UK, however, we can be confident in the assessment that overall water risk to UK apple imports is moderate.

Given the implications for individual supply chains, it is important to consider whether there are local hotspots of water risk in sourcing countries that are masked by looking at country averages. Approximately 40% by value of the UK's imports come from countries that have hotspots of high water risk (i.e. at least some river catchments in that country have high water risk), and there is therefore a potential for supply chain disruption from those countries. The most significant source countries, in terms of import value, with hotspots of high water risk are China, the US, Italy and Spain.

So while the analysis showing overall average product water risk for the UK is instructive from a wider business and UK economy perspective, for individual companies to understand their water risk it is essential that they map their own supply chains in some detail to understand whether the products they rely on come from water risk hotspots.

The sections below draw out some of the implications for key sectors potentially exposed to the highest water risks in their supply chains: retail, agriculture, and food and beverage manufacturing.

Retail

The key products of relevance for the retail sector in the study are clothing, fresh produce and food commodities, food products, beverages and appliances and technology.

Clothing has the highest imported water risks of any of the product categories analysed. While the average risk across all sourcing countries is moderate, at a country level there are high physical, regulatory and/or reputational water risks for imports from some key sourcing countries. In particular, China, India, Bangladesh and Pakistan – which account for almost 60% of clothing imports, worth £9.7 billion – all have high risks across at least two water risk categories. Turkey is also a significant sourcing country (5% of total imports), and has a high physical water risk as a result of water scarcity.

For individual companies in this sector it is important to consider water risk 'hotspots'. For example, if a company relies heavily on clothing from Faisalabad in Pakistan, or the Yellow River area of Shandong province in China – both centres for clothing production – their water risks will be high as a result of water scarcity or quality problems. Similarly, there are very locally specific regulatory and

62%

OVERALL, 62% OF THE UK'S TOTAL WATER FOOTPRINT IS IN OTHER NATIONS

reputational risks associated with leather from Kanpur in India (see case study on the Ganges on page 40).

Another important consideration is the indirect risks for clothing through supply chains. For example, the production of cotton, a key raw material for the sector, relies heavily on water. Even if textile production sites are not located in areas of high water risk the cotton supply chain is likely to be exposed to high risks, given that the top three producers (China, India and Pakistan) all have high water risks for cotton production.

Globally, growing food is one of the biggest consumptive uses of water. As the UK imports approximately 40% of its food requirement[59] it is important to understand how this correlates to water risk. Fresh produce, food commodities and processed food products coming into the UK all show moderate overall imported water risks, with low regulatory risks and no risk type (physical, regulatory or reputational) being high. For beverages, overall water risk for the UK is moderate but there are high water risks in imports from Spain (physical risks from water scarcity), Chile (regulatory risks as a result of inadequate basin-level platforms), and Australia (reputational risks as a result of the close media attention on water issues).

Appliances and technology show high water risks in some countries across some risk categories. This is due to the significant imports from Turkey and China, which together accounted for 42% of appliance imports and 25% of technology imports in 2013, worth £827 million and £10 billion, respectively. Turkey has a high physical water risk, because of water scarcity, and China has high regulatory and reputational water risks as a result of shortcomings in basin water strategies, legal frameworks around water, and the close attention paid to water issues in the country both domestically and internationally.

The import water risk for the UK agricultural sector is mainly associated with agrochemicals and animal feed

Agriculture

The import water risk for the UK agricultural sector is mainly associated with agrochemicals and animal feed. The overall water-related risk for imported agrochemicals is considered to be low. However, there are some areas of high water risk for chemicals linked to reputational and regulatory risks in China and Russia, but these countries represent a small proportion of overall chemical imports.

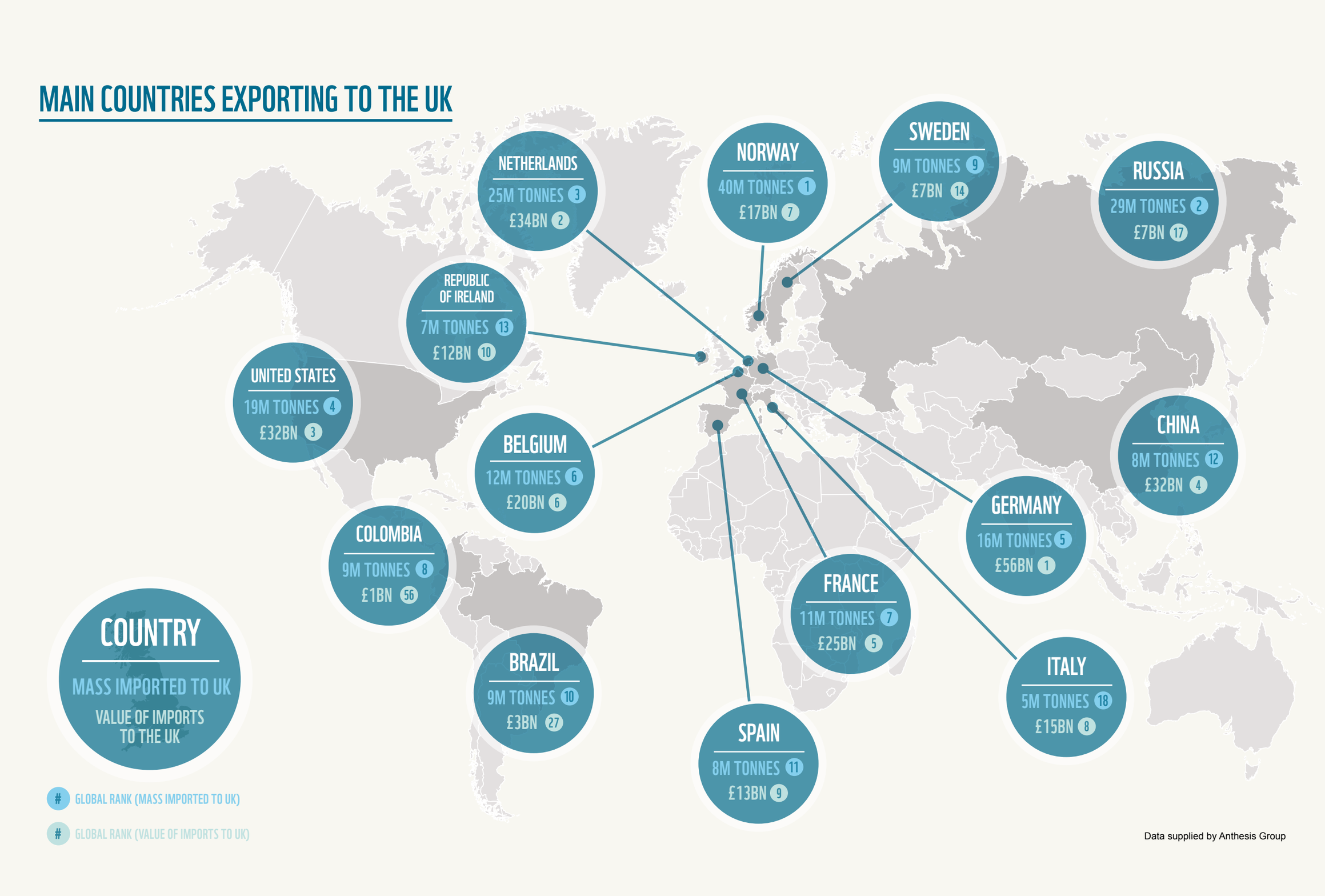
Animal feed has a moderate water risk overall. The majority of imports in the 'food products' category, which includes animal feed, originate from the EU and have low to medium risks[60]. However, analysis at a country level shows some potential risk hotspots for agriculture – such as regulatory risks associated with sourcing soya-based feed from Argentina as a result of shortcomings in water strategies and policy implementation, reputational risks for soya-based feed from Brazil as a result of close national and international scrutiny of water issues, and water risks for maize from Ukraine, which has a high regulatory risk as a result of inadequate basin-level water institutions and legal frameworks for water.

Food and drinks manufacture

The principal raw materials imported for food and beverage manufacturing are commodities such as cereals, fruit and vegetables and processed or semi-processed foods such as sugar or flour. As such, this sector faces many of the same risks as outlined above in the context of the retail sector.

Both food commodities and processed and semi-processed foods show an overall medium water risk. The country-level analysis for these product categories do show some country-specific high water risks, but these high risks are generally for sources of animal feed (see above) rather than raw materials for the food and drinks sector. The UK's largest trading partners for agricultural produce or semi-processed foods destined for human consumption are largely within the EU; the analysis showed that, when aggregated to a country level, the water risks to production are generally moderate or low as a result of these countries being relatively water abundant in a global context with relatively strong regulatory frameworks for water (note that there may well be risks to the water environment from production but that this was not looked at as part of this study). However, for individual businesses, there may be hotspots of water risk in some supply chains. For example, imported fruit from southern Spain or the Western Cape of South Africa will have high water risks.

MAIN COUNTRIES EXPORTING TO THE UK



Data supplied by Anthesis Group

THE IMPACT OF TANNERIES ON THE GANGES

Background

The River Ganges is over 2,500km long and has a basin of over 1 million km2 (more than four times the area of the UK). While 80% of the basin lies in India, it also covers parts of Nepal, China and Bangladesh. Most of the river flow occurs during the monsoon season with peak discharges from the basin occurring in July, August and September. The river supports a rich diversity of species, notably the Ganges river dolphin, the gharial (a relative of the crocodile), a large number of carp and other fish species, and 12 species of freshwater turtle.

Impact of the tanneries

An estimated 286 million litres of industrial effluent, largely untreated, is discharged to the river annually[61]. This leads to very poor water quality in areas downstream of cities and industrial clusters, such as the tannery cluster in Kanpur.

Kanpur is one of the largest tannery and leather goods clusters in India, and exports more than 90% of the leather it produces. The cluster employs more than 100,000 people within 1,600 tannery and manufacturing units, of which about 400 are tanneries. Apart from being a large producer and employer, the cluster is also one of the biggest polluters within the Ganges river basin. More than 80% of the tannery waste is reportedly released untreated into the Ganges[62].

Chromium concentrations downstream of Kanpur are well in excess of acceptable levels, almost entirely due to the tanneries. Recent moves by the authorities in India to close down tanneries in Kanpur that are failing to remove chromium and other pollutants from their wastes[63] show that there is a clear regulatory risk to companies that are failing to adhere to water quality requirements.

TREATED SEWAGE AND INDUSTRIAL EFFLUENT IN KANPUR

3 RESPONDING TO WATER RISKS

To help businesses respond to water risks, WWF has created a five-step framework for corporate water stewardship.

The water stewardship steps are by no means a linear process. Each step requires continuous improvement, and will need to be revisited over time.

The first three steps are distinct from the next two. This is where a company shifts from management to stewardship – moving beyond issues over which it has direct control to those where control is indirect. The measures, focus, engagement and complexity change considerably.

Many UK businesses are already working on the first three steps of the water stewardship ladder, with some setting ambitious targets to reduce water consumption in offices, stores and factories. This type of action is vital, but on its own, not sufficient to mitigate risk.

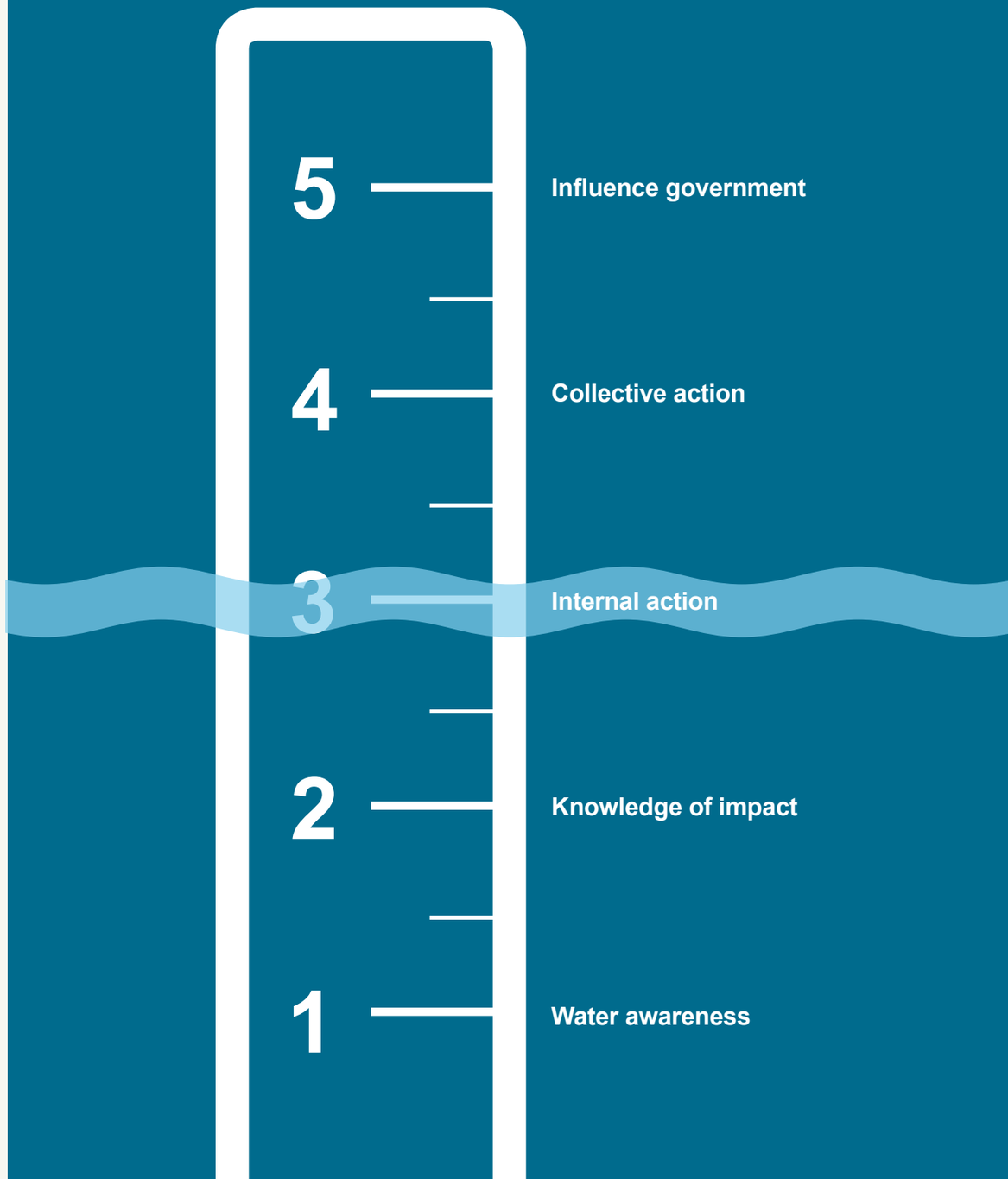
Strategic engagement with suppliers and other stakeholders as part of steps 3, 4 and 5 is critical to proactively manage risk.

For example, if a company is operating in a water-stressed catchment where others continue to manage water poorly, then the business remains exposed to water risks, however efficient their own operations.

For effective water stewardship to reap long-term rewards, businesses need to engage in all the steps, influencing suppliers, taking collective action with other stakeholders in the catchments in which they operate and sources, and ultimately improve governance to ensure water is managed sustainably.

Water risks are not simply an issue for management; increasingly shareholders are requesting information on how companies are addressing their water risks. Disclosure of information via key platforms such as CDP Water (www.cdp.net/water) as a company progresses along the water stewardship journey not only demonstrates leadership, but also helps to drive consistent reporting internally and mitigates reputational water risks that may affect shareholders.

WWF's Water Stewardship Steps



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Step 1: Water awareness

Understanding water scarcity and quality challenges and how they might affect business is a critical starting point. It's essential to raise awareness with relevant staff across the organisation, including the CEO, senior management and the supply chain.

A number of steps will help on this first stage of the journey:

a. Get to grips with general social, environmental and economic water issues, the water management context, water institutions, and the implications for specific sectors. For further information on some of the potential sources of information see the opposite page.

UNDERSTANDING WATER SCARCITY AND QUALITY CHALLENGES AND HOW THEY MIGHT AFFECT BUSINESS IS A CRITICAL STARTING POINT

b. Understand what competitors are doing, how the company is perceived by others and what investors expect on water. Sources of information include case studies on websites and analyst briefings. It can also be useful to talk to peers in other companies and a range of stakeholders including, if already known, those in the catchments that are critical to the business, the press, consumers and NGOs.

c. Build an understanding of the supply chain where this is not already available, including knowledge of the volume of water and quality used. Once this has been done engage with the supply chain to help increase supplier awareness of the risks. The case study on page 46 provides an example of a guide that is being used to raise awareness about water with agricultural suppliers.

KEY SOURCES OF INFORMATION

WWF

WWF's website includes pages on water stewardship: *www.panda.org/ws*

WaterLIFE website

Includes information on WWF's WaterLIFE Project including project partners and access to key deliverables: *www.waterlife.org.uk*

CEO Water Mandate

Launched in 2007 by the UN Secretary-General, this is a public-private initiative designed to help companies develop, implement and disclose water sustainability policies and practices: *www.ceowatermandate.org*

2degrees

A community for businesses working to drive efficiency and growth through being more sustainable, including on water risk and strategy: *www.2degreesnetwork.com*

***Guardian* Sustainable Business**

Provides news, comment and analysis on sustainable business issues, with a specific water hub: *www.theguardian.com/sustainable-business*

CDP

An international NGO providing ways for companies and cities to measure, disclose, manage and share vital environmental information, including on water: *www.cdp.net/water*

OOSKA

An up-to-date source of global water-related news: *www.ooskanews.com/lens/risk*

Circle of Blue

Provides relevant and reliable on-the-ground information about the world's resource crises: *www.circleofblue.org*

WaterAid

An international NGO dedicated to water, sanitation and hygiene: *www.wateraid.org/uk*

LEAF *SIMPLY SUSTAINABLE WATER* BOOKLET – INCREASING SUPPLIER AWARENESS

ASDA, Molson Coors and LEAF (an NGO that promotes sustainable food and farming) have developed a *Simply Sustainable Water* booklet to help UK-based suppliers understand farming-related impacts on water and develop strategies to overcome them (www.leafuk.org/leaf/farmers/ssw.eb).

The booklet features farmer case studies showing what is possible. For example, it features Overbury Farm, a malting barley supplier to Molson Coors. Overbury is also a LEAF accredited demonstration farm that hosts visits for farmers to show how it is implementing the six steps described in Simply Sustainable Water, for example:

- protecting water sources e.g. leaving a margin between crops and springs and streams to 'catch' pollutants and provide food and cover for birds
- soil management for water quality e.g. planting cover crops, such as mustard, to reduce winter soil erosion
- drainage and ditching e.g. installing a silt trap and a reed bed to slow water down to naturally filter out pollutants
- tracking water uses and monitoring e.g. using nitrate and phosphate water quality testing kits to see what is coming into and what is going out from the farm[68]

OVERBURY FARM, LAUNCHED AS A LEAF DEMONSTRATION FARM

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Step 2: Knowledge of impact and risk

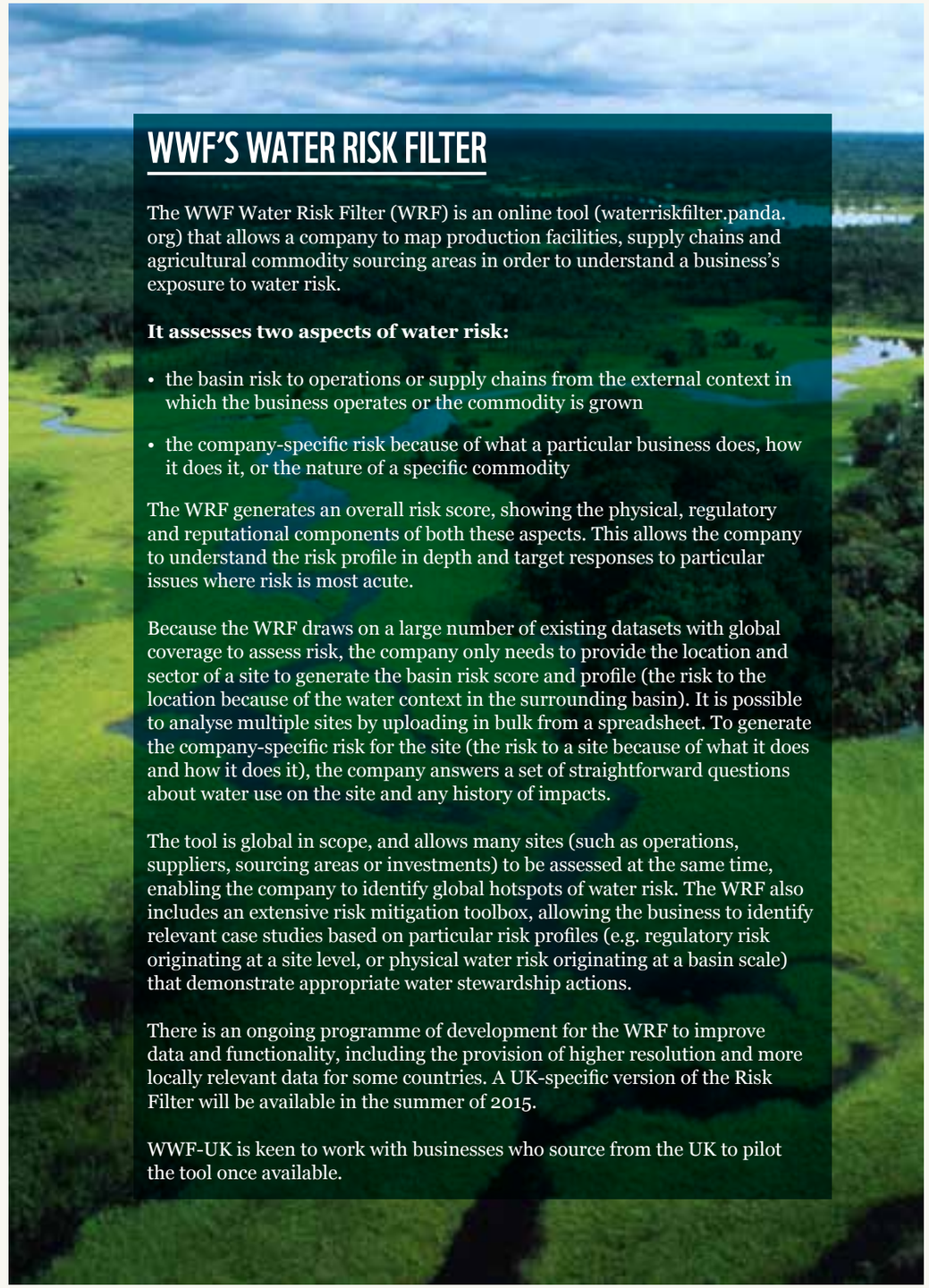
Once there is an understanding of the wider water context, the next step is to get to grips with where water comes from and where waste water goes in both operations and the supply chain, and the impact this is having on the environment.

a. Identify locations of operations and suppliers. For some businesses this may be simple, but for others there may be challenges in understanding where the supply chain leads to and which river basins are relied upon. Start with the supply chains that are best understood and that the company has the most influence over. For example, it's easier for a supermarket to trace the source of its fresh fruit than all the ingredients in its ready meals. Where possible, get the coordinates (latitude-longitude) or postcodes of each location. If it is proving challenge, refer to existing research for process hotspots in the supply chain and work out if you can trace and influence them.

THE NEXT STEP IS TO GET TO GRIPS WITH WHERE WATER COMES FROM, WHERE WASTE WATER GOES AND THE IMPACT ON THE ENVIRONMENT

b. Identify high-risk hotspots. Many free water risk tools are available to help assess the level of risk for each site in each location. These include WWF's Water Risk Filter waterriskfilter.panda.org (see opposite) and WRI's Aqueduct tool (wri.org/aqueduct). In addition, in the UK, companies can check the catchment management plans available for most catchments across the country to better understand the river basins which the business depends on – see the summaries on the Environment Agency's website www.environment-agency.gov.uk and the full plans at www.catchmentbasedapproach.org. The process of identifying water risks can be reported in the 'risk assessment' section of CDP's water questionnaire (www.cdp.net/water). It includes guidance on which stakeholders and contextual issues should be considered within risk assessment.

A company should also determine if the business is having an impact on the water supply and sanitation of local communities. The Joint Monitoring Programme for Water Supply and Sanitation (www.wssinfo.org), led by the World Health Organization and UNICEF, is a useful source of data.



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WWF'S WATER RISK FILTER

The WWF Water Risk Filter (WRF) is an online tool (waterriskfilter.panda.org) that allows a company to map production facilities, supply chains and agricultural commodity sourcing areas in order to understand a business's exposure to water risk.

It assesses two aspects of water risk:

- the basin risk to operations or supply chains from the external context in which the business operates or the commodity is grown
- the company-specific risk because of what a particular business does, how it does it, or the nature of a specific commodity

The WRF generates an overall risk score, showing the physical, regulatory and reputational components of both these aspects. This allows the company to understand the risk profile in depth and target responses to particular issues where risk is most acute.

Because the WRF draws on a large number of existing datasets with global coverage to assess risk, the company only needs to provide the location and sector of a site to generate the basin risk score and profile (the risk to the location because of the water context in the surrounding basin). It is possible to analyse multiple sites by uploading in bulk from a spreadsheet. To generate the company-specific risk for the site (the risk to a site because of what it does and how it does it), the company answers a set of straightforward questions about water use on the site and any history of impacts.

The tool is global in scope, and allows many sites (such as operations, suppliers, sourcing areas or investments) to be assessed at the same time, enabling the company to identify global hotspots of water risk. The WRF also includes an extensive risk mitigation toolbox, allowing the business to identify relevant case studies based on particular risk profiles (e.g. regulatory risk originating at a site level, or physical water risk originating at a basin scale) that demonstrate appropriate water stewardship actions.

There is an ongoing programme of development for the WRF to improve data and functionality, including the provision of higher resolution and more locally relevant data for some countries. A UK-specific version of the Risk Filter will be available in the summer of 2015.

WWF-UK is keen to work with businesses who source from the UK to pilot the tool once available.

FLOODED FORESTS, RIO NEGRO FOREST RESERVE, AMAZONAS, BRAZIL

SABMILLER'S APPROACH TO RISK ASSESSMENT

Background

Few sectors are as aware of their water-related risks as the beverage industry. The products they produce are more than 90% water and have water-intensive supply chains to produce ingredients such as sugar or barley. In many cases, the sector is dependent on water sources that are overstretched, polluted or both. SABMiller, the world's second largest brewer, has become one of the most progressive businesses on water stewardship.

Risk assessment

In 2009, SABMiller carried out a number of high-level water risk studies focusing on both operations and supply chains in countries such as Peru, India, the USA and South Africa[65]. The results led to collective action projects in the highest-risk hotspots, in partnership with organisations such as GIZ (the German state-owned development enterprise), The Nature Conservancy and WWF.

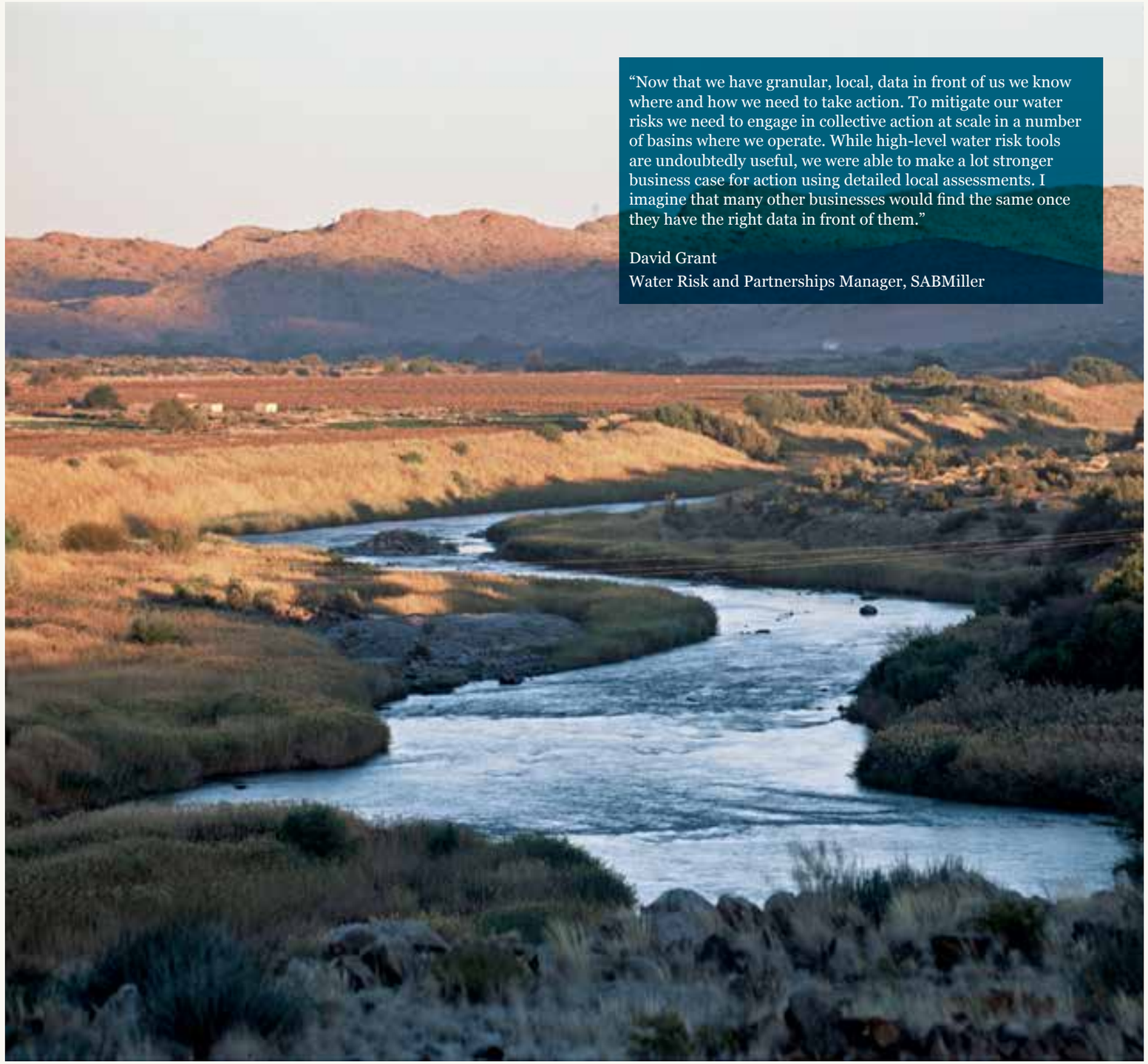
SABMiller first undertook a high-level assessment of all its sites and operations using publicly available tools such as the WWF Water Risk Filter and the World Business Council for Sustainable Development water tool. Although this work was a significant step forward, by 2013 SABMiller realised it needed a more detailed understanding of the potential water risks facing its breweries globally. It launched a group water risk assessment process, which included developing a new methodology to analyse water availability, water quality, the strength of the regulatory system and reputational risks covering all the catchments in which the company operates. As well as seeking to understand the risks faced by the breweries, SABMiller also assessed the risks faced by communities.

Outcome and business benefits

SABMiller has developed a clear timeline to assess all of its operations using this new methodology, and the benefits are already evident. The data reveals the extent of the water risks the company faces, and shows that collective action to mitigate these risks is needed in almost every river basin.

Lessons learnt

For SABMiller, a key lesson learnt has been the importance of engaging internally, expressing water issues as a business risk. Water risks are thus assessed in a similar way to other company risks. This includes evaluating probability and severity and attaching a financial value where possible. As well as increasing understanding among country and divisional managers, this has elevated water risks within the company's overall risk hierarchy, ensuring resources are made available to mitigate the risks where necessary.



"Now that we have granular, local, data in front of us we know where and how we need to take action. To mitigate our water risks we need to engage in collective action at scale in a number of basins where we operate. While high-level water risk tools are undoubtedly useful, we were able to make a lot stronger business case for action using detailed local assessments. I imagine that many other businesses would find the same once they have the right data in front of them."

David Grant
Water Risk and Partnerships Manager, SABMiller

ORANGE RIVER, SOUTH AFRICA

GSK'S WATER RISK ASSESSMENT METHODOLOGY

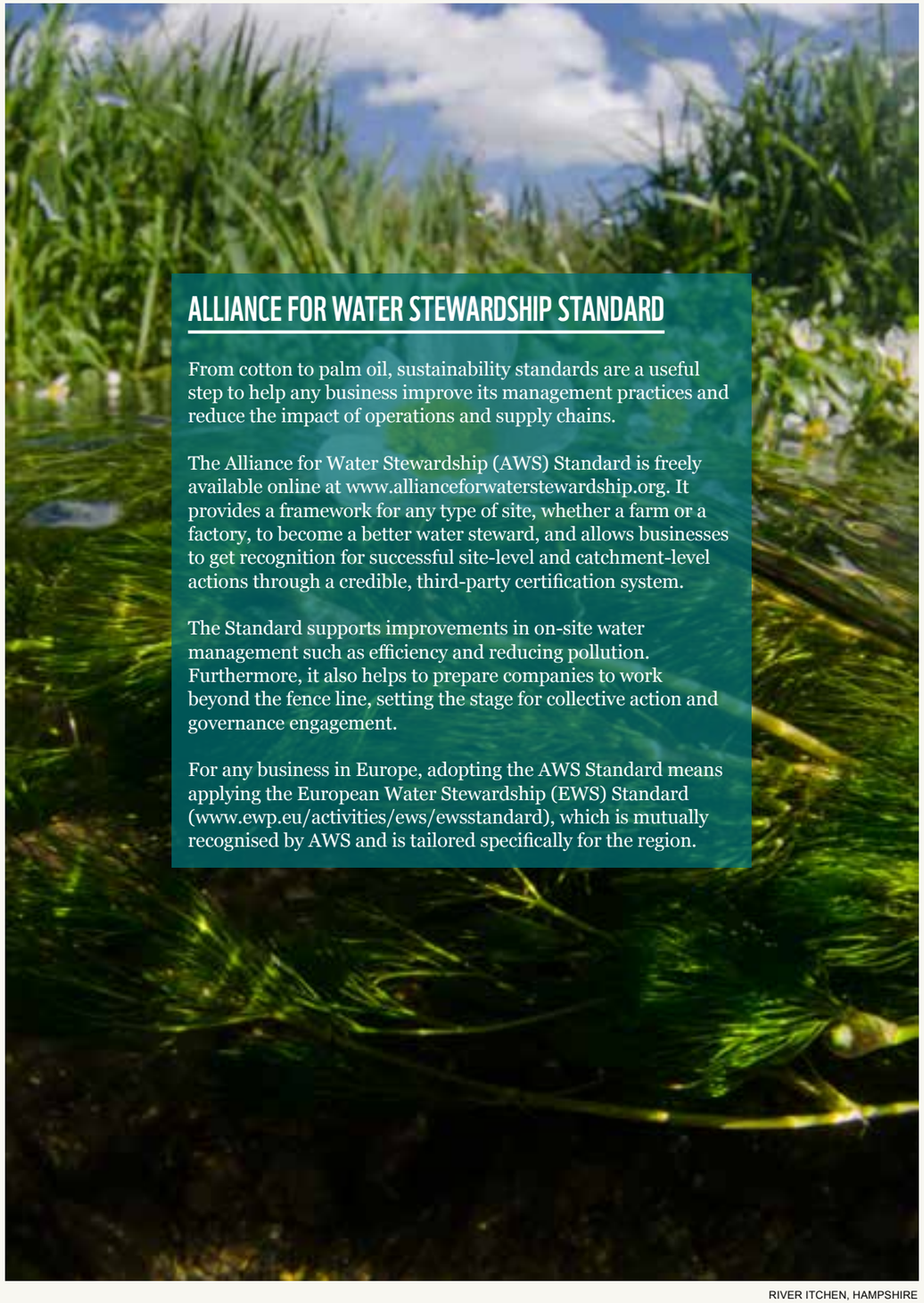
GSK has developed a 'threat adjusted' water impact metric, which incorporates water consumption in different parts of the value chain and key water-risk indicators for each location, with sales data to assess the business value at risk. These indicators, taken from WWF's Water Risk Filter, relate to water stress, water quality, access to safe drinking water and sanitation, and regulatory and reputational risks.

GSK is best known in the UK for prescription drugs, over-the-counter medicines and healthcare products such as toothpaste. In India, however, the company is best known as the manufacturer of Horlicks, consumed in around 30 million homes.

GSK's analysis showed that milk, malt and wheat-related raw materials sourced in India for Horlicks production was one of their water risk hotspots.

The company has now started working with local partners to identify opportunities to reduce value chain water impact and risk in India.

RIVER GANGES, INDIA



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ALLIANCE FOR WATER STEWARDSHIP STANDARD

From cotton to palm oil, sustainability standards are a useful step to help any business improve its management practices and reduce the impact of operations and supply chains.

The Alliance for Water Stewardship (AWS) Standard is freely available online at www.allianceforwaterstewardship.org. It provides a framework for any type of site, whether a farm or a factory, to become a better water steward, and allows businesses to get recognition for successful site-level and catchment-level actions through a credible, third-party certification system.

The Standard supports improvements in on-site water management such as efficiency and reducing pollution. Furthermore, it also helps to prepare companies to work beyond the fence line, setting the stage for collective action and governance engagement.

For any business in Europe, adopting the AWS Standard means applying the European Water Stewardship (EWS) Standard (www.ewp.eu/activities/ews/ewsstandard), which is mutually recognised by AWS and is tailored specifically for the region.

RIVER ITCHEN, HAMPSHIRE

Step 3: Internal and supply chain action

Internal action represents those areas where companies maintain a direct control, for example over operations and immediate suppliers. Tier 2 and 3 suppliers may be harder to influence but they can still represent a risk as was demonstrated for the textile sector by Greenpeace's Dirty Laundry campaign.

Step 3a – Internal action

Once a detailed risk assessment has been carried out the next step is to raise awareness of the findings internally and to get a company's own house in order.

a. Build 'buy-in' across the company on the business case for water stewardship. Building strategic and operational support for water stewardship at all levels within the company is essential. It's useful to build and share the business case for water stewardship. This should articulate the rationale and highlight the issues the company faces in the highest-risk catchments. It's also important to set out the positive business opportunities. A company could consider establishing business champions across critical functions that are accountable for delivering water stewardship priorities. The UN's Global Compact's CEO Water Mandate (ceowatermandate.org) is a great mechanism to generate senior buy-in for water stewardship and may form the basis for strong corporate water stewardship policies. To help generate buy-in, consider calculating the value of water as it relates to various costs (operational, infrastructure, administrative, brand, etc.) and benefits (jobs, value to the local economy, ecosystem service provision, etc.).

BUILD BUY-IN ACROSS THE COMPANY ON THE BUSINESS CASE FOR WATER STEWARDSHIP

b. Get the company's own house in order. Ensure the company is complying with legislation, and implementing best practices related to water management. Without showing leadership with the aspects of water under the company's direct control, there will be a lack of credibility when engaging in the more challenging aspects of water stewardship including with suppliers. It may be helpful to look at implementing standards such as the AWS (see opposite), especially for operations in high water risk areas (as identified in Step 2), which also sets the stage for Steps 4 and 5 in those locations.

c. Engage effectively with employees. Water needs to be a key pillar of any sustainability engagement strategy with staff. Profile flagship projects and exemplars to build support, and ensure employees have the skills and knowledge they need.

d. Disclose the company's water risks. Water risks are not simply an issue for management; increasingly shareholders are requesting information on how companies are addressing their water risks. Participation in key platforms such as CDP Water (www.cdp.net/water) not only demonstrates leadership, but also helps to drive consistent reporting internally and mitigates reputational water risks that may affect shareholders.

Step 3b – Understand and work closely with suppliers

FOR MANY COMPANIES, THE MOST SIGNIFICANT WATER RISK LIES WITH THEIR SUPPLIERS

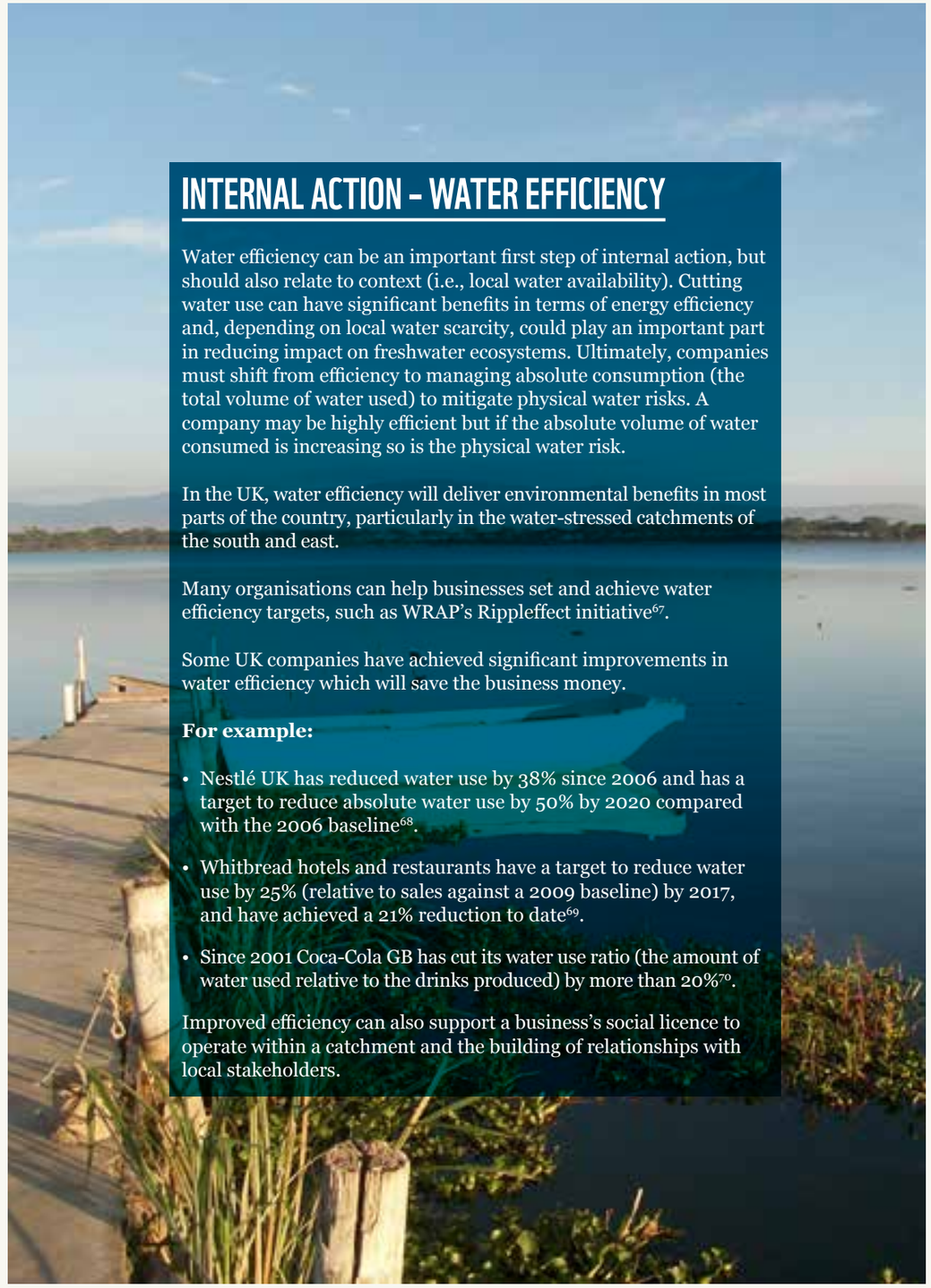
For many companies, the most significant water risk lies with their suppliers, and working with them to put in place mitigation measures to reduce risk and minimise negative impacts on the ground is crucial.

a. Identify and target key suppliers that can be influenced and that could have the most impact on the business. For example by the value or volume of products sourced from each.

b. Ensure all operatives and suppliers are fully compliant with relevant legislation by requiring self-reporting and undertaking inspections for a list of water-related on-farm compliance requirements in England and Wales. Outside of the UK, in countries with poor regulation, compliance may not mitigate risks and additional voluntary action may be needed. For example in some countries there are no controls on groundwater abstraction.

c. Where relevant share lessons learnt from taking action on a company's own operations, and support suppliers so they understand their impact on water. Engagement with suppliers and how they are included in the companies' water risk assessments can be reported in the 'risk assessment' section of CDP's water questionnaire.

d. Provide advice and information to suppliers to help raise awareness of the risks and ensure suppliers are assessing them robustly. For example, to reduce water risks associated with agriculture in UK hotspots, this could mean promoting, or requiring suppliers to participate in government advisory schemes such as Catchment Sensitive Farming, and, where relevant, apply for funding under the countryside stewardship scheme[66]. For products that are sourced outside of the UK review good practice and consider the financial and technical support that could be accessed and relevant initiatives underway.



INTERNAL ACTION – WATER EFFICIENCY

Water efficiency can be an important first step of internal action, but should also relate to context (i.e., local water availability). Cutting water use can have significant benefits in terms of energy efficiency and, depending on local water scarcity, could play an important part in reducing impact on freshwater ecosystems. Ultimately, companies must shift from efficiency to managing absolute consumption (the total volume of water used) to mitigate physical water risks. A company may be highly efficient but if the absolute volume of water consumed is increasing so is the physical water risk.

In the UK, water efficiency will deliver environmental benefits in most parts of the country, particularly in the water-stressed catchments of the south and east.

Many organisations can help businesses set and achieve water efficiency targets, such as WRAP's Rippleffect initiative[67].

Some UK companies have achieved significant improvements in water efficiency which will save the business money.

For example:

- Nestlé UK has reduced water use by 38% since 2006 and has a target to reduce absolute water use by 50% by 2020 compared with the 2006 baseline[68].
- Whitbread hotels and restaurants have a target to reduce water use by 25% (relative to sales against a 2009 baseline) by 2017, and have achieved a 21% reduction to date[69].
- Since 2001 Coca-Cola GB has cut its water use ratio (the amount of water used relative to the drinks produced) by more than 20%[70].

Improved efficiency can also support a business's social licence to operate within a catchment and the building of relationships with local stakeholders.

LAKE NAIVASHA, KENYA

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THE LEAF MARQUE AND CONSERVATION GRADE – SUPPORTING CHANGING SUPPLIER PRACTICES

The LEAF Marque and Conservation Grade provide examples of schemes that are being used to incentivise or require suppliers to ensure that farms that they source from are taking proactive action to protect the environment, including water resources.

The LEAF Marque

The LEAF Marque is an assurance system that gives farmers recognition for their environmental commitment and offers consumers the opportunity to buy affordable, responsibly produced food (identified by the LEAF Marque logo). All farms certified to the LEAF Marque standard care for the environment by:

- improving water efficiency and quality
- using crop rotations to keep the soil in good health
- managing hedgerows to provide a variety of habitats and food sources for wildlife
- implementing a plan to create and enhance habitats to increase biodiversity
- using pesticides and fertilisers only when absolutely necessary
- leaving a strip of land between hedgerows and crops to act as habitat for wildlife
- recycling on-farm waste and conserving energy
- assessing the environmental impact of, and continually improving, farming practices

WEST BEEDING, WEST SUSSEX

e. Put in place procurement standards and/or other incentives to encourage suppliers to mitigate water risks and ensure that all internal procurement staff have sufficient training. For example, to reduce water risks associated with agriculture in UK hotspots, this could mean:

- incentivising (through premium prices or longer term contracts) or requiring suppliers to sign up to farm assurance schemes such as the Leaf Marque or Conservation Grade – as illustrated in the case study opposite

- adopting water risk mitigation measures as part of procurement standards

- support suppliers to implement capital-intensive mitigation measures (such as on-farm slurry storage) through longer-term contracts or by facilitating low cost loans

f. Establish a corporate water stewardship policy and an implementation plan that includes goals with ambitious and time-bound targets (e.g. on water efficiency and pollution reduction, leading to reduced impacts on people or ecosystems), actions to mitigate the company's water risks and impacts both in its operations and its supply chain (e.g. ensuring legal compliance, setting out ambitions for collective action where possible) and a monitoring and reporting plan.

A company might involve suppliers (where appropriate) in developing the company water policy, disseminate the final policy and implementation plan, and develop and share tools with them.

Several businesses and organisations have published commitments and information on their water stewardship plans, including General Mills, H&M, AB InBev (the world's largest brewer), Ecolab (a provider of water, hygiene and energy technologies) and Coca-Cola.

g. Monitor the results of any actions the company and suppliers take. This may be most effectively achieved via working with partners, for example to ensure that any actions taken have an impact on the ground.

WWF urges companies to share draft policies and plans with key stakeholders (including NGOs and suppliers) for input and to publish them when complete. As with any plan, this will need to be revised over time and as the company progresses up the water stewardship ladder. Final plans can be disclosed in the 'response' section of CDP's water questionnaire (www.cdp.net/water) to highlight action to investors, purchasers and government.

FARMLAND IN WILTSHIRE

CONSERVATION GRADE AND CHANGING SUPPLIER PRACTICES

Jordans Cereals developed the Conservation Grade (CG) to encourage their suppliers to deliver the highest levels of on-farm wildlife with a premium paid in return for meeting the CG Protocol. Premiums vary but are generally about 10% more than a non CG product.

A number of other brands, including Allinson and Burgan breads, have since signed up. One key business benefit is the positive market differentiation with emphasis placed on quality food and care of the British countryside, with a brand which is recognisable to the consumer.

To meet the requirements of CG, the farmer must satisfy essential criteria including committing at least 10% of the farm to wildlife habitats, complete a farm environment plan (reviewed annually), participate in training and pass an annual audit. Water is now a key priority and specific targets and actions include:

- introducing buffer strips no less than five metres wide between the top of the ditch bank and the crop, or the water's edge
- meeting standards for water quality relating to pesticides and application of manure and fertiliser (e.g. not within 10 metres of a watercourse including field drains or ditches and not within 50 metres of a source of drinking water)
- having relevant strategies in place to optimise water usage on the farm and to minimise water waste

As yet, there is not any formal water quality monitoring but ecosystem benefits have shown increases in species such as birds, butterflies and bees[71].

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WWF AND COCA-COLA JOINT WESTMINSTER ROUNDTABLE EXAMINING ROLE OF PARTNERSHIP IN SUSTAINABLE WATER MANAGEMENT

Step 4: Collective action

Collective action involves companies stepping beyond their own operations and those of their suppliers to engage a variety of other stakeholders to improve water management more widely.

THE ULTIMATE AIM OF ANY COLLECTIVE ACTION PROJECT IS TO STRENGTHEN THE WAY IN WHICH WATER RESOURCES ARE GOVERNED

In many cases, water-related risks originate from factors beyond a single company's control – for example the collective mismanagement of water resources in the catchment where a business or its suppliers operate. Mitigating these risks means collaborating with other businesses, government, NGOs, and communities to ensure that shared freshwater resources are managed sustainably. Collective action can happen at all scales, from influencing local water management to playing an active role in international action such as the CEO Water Mandate (www.ceowatermandate.org). The Mandate has produced a guide to water-related collective action that offers good practice to help companies establish enduring relationships with a broad spectrum of stakeholders, leaders and individuals to advance sustainable water management[72].

The ultimate aim of any collective action project is to strengthen the way in which water resources are governed. This end-goal must be clear from the outset, or projects and activities may not lead to the necessary long-term change.

a. Work from key water risk hotspots and identify key catchments in which a company's input is likely to have the most impact. If a company operates in or sources from one key region, it makes sense to focus efforts there. If a company sources products from a number of catchments, it may be better to work with other key buyers of those products, or with an NGO at the national level. Identify what capacity the company has to engage and consider the types of interventions that are likely achievable and in how many catchments.

b. Understand what efforts are alreadyunder way in the catchments identified and how the company can contribute. Work on water resource management is already underway in most river basins across the world and private sector water stewards should recognise the importance of their positive role in these conversations. The pull out boxes and case studies in this section provide an overview of some of these collective action projects:

- under way in the UK – including Molson Coors' engagement in collective action in two catchments.

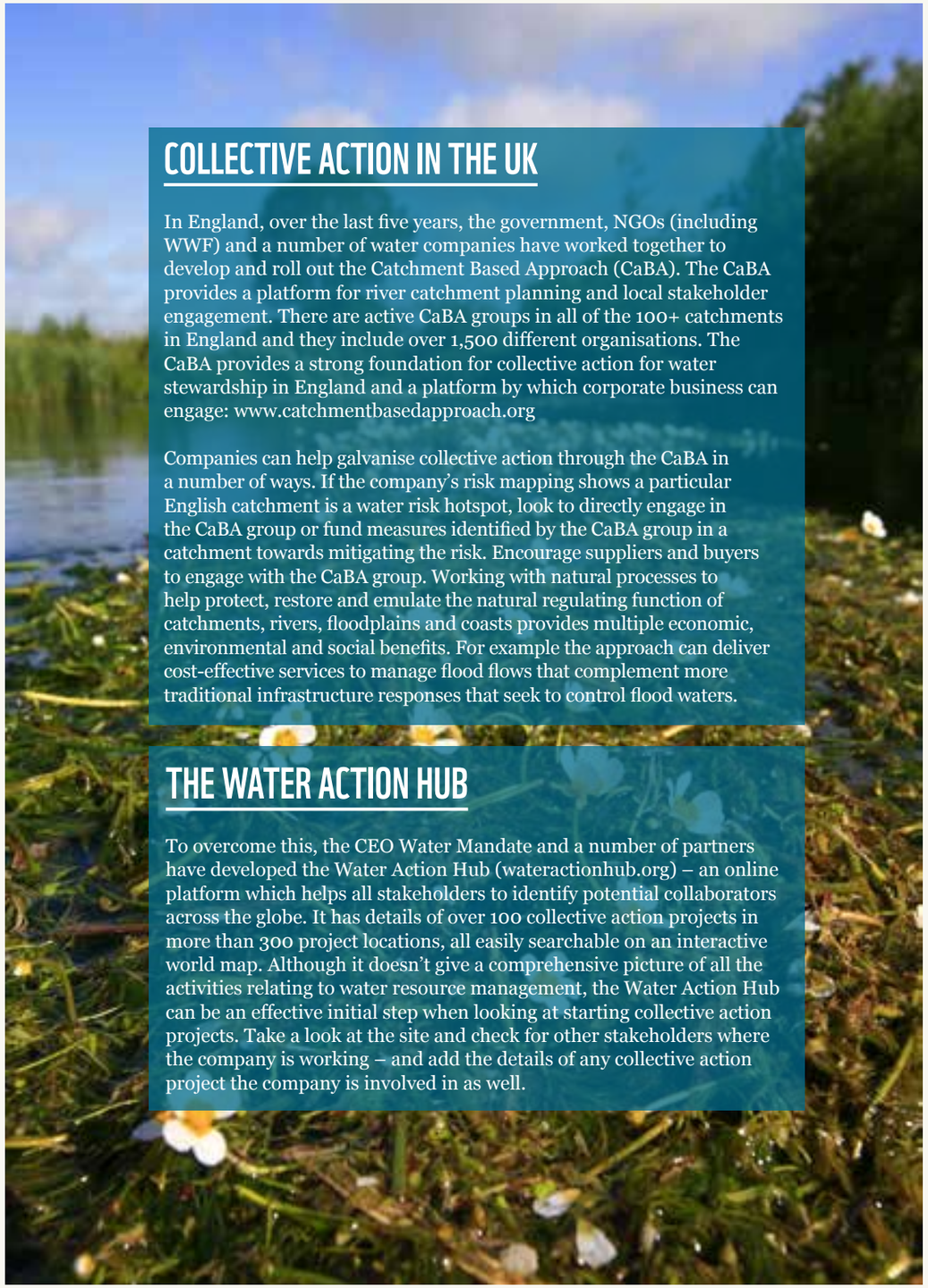
- that WWF is driving globally including our water stewardship basin strategies to guide action in critical river basins. This includes work already underway with Marks & Spencer'to address water risk in the Western Cape.

- the Water Action Hub (see opposite) provides an overview of additional collective action projects globally.

c. Support collective action in water risk hotspots by engaging with local basin stakeholders such as municipalities, governments, other companies, farmers and NGOs. This could mean actively taking part in local forums with basin stakeholders to discuss all relevant water themes in the basin, providing financing for an existing water stewardship project, working with suppliers to support their involvement in collective action or funding the establishment of a new water stewardship partnership with other basin stakeholders.

If a new partnership is to be set up it is important to assess whether the right stakeholders are represented at the right level in the group. Have competitors been included? It's often easier to engage with other sectors and suppliers than competitors, but if they are major stakeholders in the catchment they need to be involved.

d. Learn, adapt and share the lessons learnt. Consider working with other local businesses to highlight efforts and successes (e.g. the experiences implementing projects and the benefits derived) in an effort to encourage greater activity on shared water challenges. This will both improve the water projects the company is engaging in and enable others to learn from them. It will also facilitate scaling up water stewardship work.



COLLECTIVE ACTION IN THE UK

In England, over the last five years, the government, NGOs (including WWF) and a number of water companies have worked together to develop and roll out the Catchment Based Approach (CaBA). The CaBA provides a platform for river catchment planning and local stakeholder engagement. There are active CaBA groups in all of the 100+ catchments in England and they include over 1,500 different organisations. The CaBA provides a strong foundation for collective action for water stewardship in England and a platform by which corporate business can engage: www.catchmentbasedapproach.org

Companies can help galvanise collective action through the CaBA in a number of ways. If the company's risk mapping shows a particular English catchment is a water risk hotspot, look to directly engage in the CaBA group or fund measures identified by the CaBA group in a catchment towards mitigating the risk. Encourage suppliers and buyers to engage with the CaBA group. Working with natural processes to help protect, restore and emulate the natural regulating function of catchments, rivers, floodplains and coasts provides multiple economic, environmental and social benefits. For example the approach can deliver cost-effective services to manage flood flows that complement more traditional infrastructure responses that seek to control flood waters.

THE WATER ACTION HUB

To overcome this, the CEO Water Mandate and a number of partners have developed the Water Action Hub (wateractionhub.org) – an online platform which helps all stakeholders to identify potential collaborators across the globe. It has details of over 100 collective action projects in more than 300 project locations, all easily searchable on an interactive world map. Although it doesn't give a comprehensive picture of all the activities relating to water resource management, the Water Action Hub can be an effective initial step when looking at starting collective action projects. Take a look at the site and check for other stakeholders where the company is working – and add the details of any collective action project the company is involved in as well.

RIVER KENNET, WILTSHIRE

MOLSON COORS – SUPPORTING COLLECTIVE ACTION IN TWO CATCHMENTS IN THE UK

Molson Coors (MC) brewery has a commitment to conserving water and ensuring it is a sustainable resource. The quality of its beer is directly affected by the quality of the water used to produce it. For this reason, protecting the water resources is a central part of its sustainability strategy, launched in 2013 called *Our Beer Print*.

In the UK, MC is involved in collective action in two catchments: the Wharfe in Tadcaster and the Wey in Alton.

Within the two UK catchments the programme has involved setting up community user groups, working with the Environment Agency, sponsoring community events and supporting local restoration groups to clear banks and restore bankside habitat to improve the river flows.

Outcomes and business benefits

The projects have helped to support the development of strong relationships with a range of key stakeholders including the Environment Agency. They have helped to raise awareness of water risks with staff and improve links and trust with the local community[73].

RIVER WEY, SURREY

ADDRESSING SUPPLY CHAIN RISKS THROUGH COLLECTIVE ACTION IN SOUTH AFRICA

Background

As in many countries, water is scarce in South Africa. If current supply and demand rates continue, water resources will be fully utilised by 2025, meaning there will be no more water to meet further rise in demand.

Assessing risk hotspots in the supply chain

Marks & Spencer (M&S), along with Woolworths (South Africa), joined forces with WWF and AWS following an analysis of water risks in its food supply chain using WWF's Water Risk Filter. M&S found that Ceres in the Western Cape was one of a number of risk hotspots in its supply chain. As it wasn't already working in the region, M&S decided to focus its efforts there.

Collective action to address supply chains risks

The project began by working with nine farmers who supply both M&S and Woolworths with nectarines, peaches, plums, cherries and apricots to develop and implement the AWS Standard (a globally consistent standard that outlines the expectations for responsible water stewardship) www.allianceforwaterstewardship.org. The farmers found applying the Standard a useful process, helping to understand the wider water context as well as quantity and quality issues. It helped them to pinpoint areas of potential improvement; all nine farmers now have a farm-specific water stewardship plan in place. In addition, the lessons from the project were used to inform the final version of the AWS Standard, which was officially launched in April 2014.

WWF then convened a stakeholder workshop with the farmers, other catchment stakeholders and the government institution that oversees water management in the region. Together the stakeholders identified a number of areas for collaboration within the catchment.

The project is now in its third year and the partners are working towards setting up long-term solutions to the issues identified in the catchment, including the need to clear non-native invasive plant species that use a lot of water and to address sanitation issues in the local informal settlement.

Lessons learnt

At the end of 2014 the group published a report, *Water Stewardship Experiences in the Western Cape*, which compiles the lessons learnt from the project – a useful read for anyone interested in water stewardship and agriculture, especially if the company is sourcing from the region[74].

CERES VALLEY, SOUTH AFRICA

WWF INTERNATIONAL - WATER STEWARDSHIP BASIN STRATEGIES

WWF has been working on water stewardship in a number of river basins, demonstrating that by working with local government, the private sector and other stakeholders, vital improvements in water resource management can be achieved. More needs to be done in order to act on a scale and with the speed necessary to counter the growing water-related risks. After consulting companies, donors and investors 'Water Stewardship Basin Strategies' have been developed for 16 global river basins. . Each is an exceptional ecosystem under growing pressure, increasing the risks for all users who depend on them.

WWF's vision is for freshwater resources to be managed sustainably and equitably in each of these basins to enable thriving communities, businesses and healthy ecosystems.

Water stewardship can highlight risks connected to water resources and show how these can be addressed through improved water governance. By engaging the ways in which water is used in the economy and linking economic sectors to their risks from water-related issues, WWF aims to bring more attention to the need for better water governance.

1 BREEDE - SOUTH AFRICA

Ceres, Western Cape (Upper Breede Basin)
Agriculture/fruit production

WWF has been working on water stewardship in the Breede for a number of years, originally initiated by M&S, Woolworths, WWF, AWS and a group of progressive fruit farmers. The farmers were part of a pilot to implement the AWS Standard, helping to improve on-farm water management practices. The project is now growing and WWF is leading initial collective action efforts in the Upper Breede with partners and other stakeholders including the Catchment Management Authority. Through collective action a number of key opportunities to mitigate water risks have been identified and the next phase of the project now explores how to address these issues.

2 INDUS - PAKISTAN

Lahore, Punjab (River Ravi, Indus Tributary)
Textiles, leather, sugar and paper SMEs

WWF is working with SMEs in Lahore, firstly on internal action, improving water efficiency and reducing pollution loads in effluent. In parallel the 'City-Wide Partnership' has been initiated in Lahore, located along the River Ravi. The partnership is a collective action platform aimed at solving water quality and quantity issues in the region. The partnership will be improved upon and strengthened in Lahore and expanded to other cities.

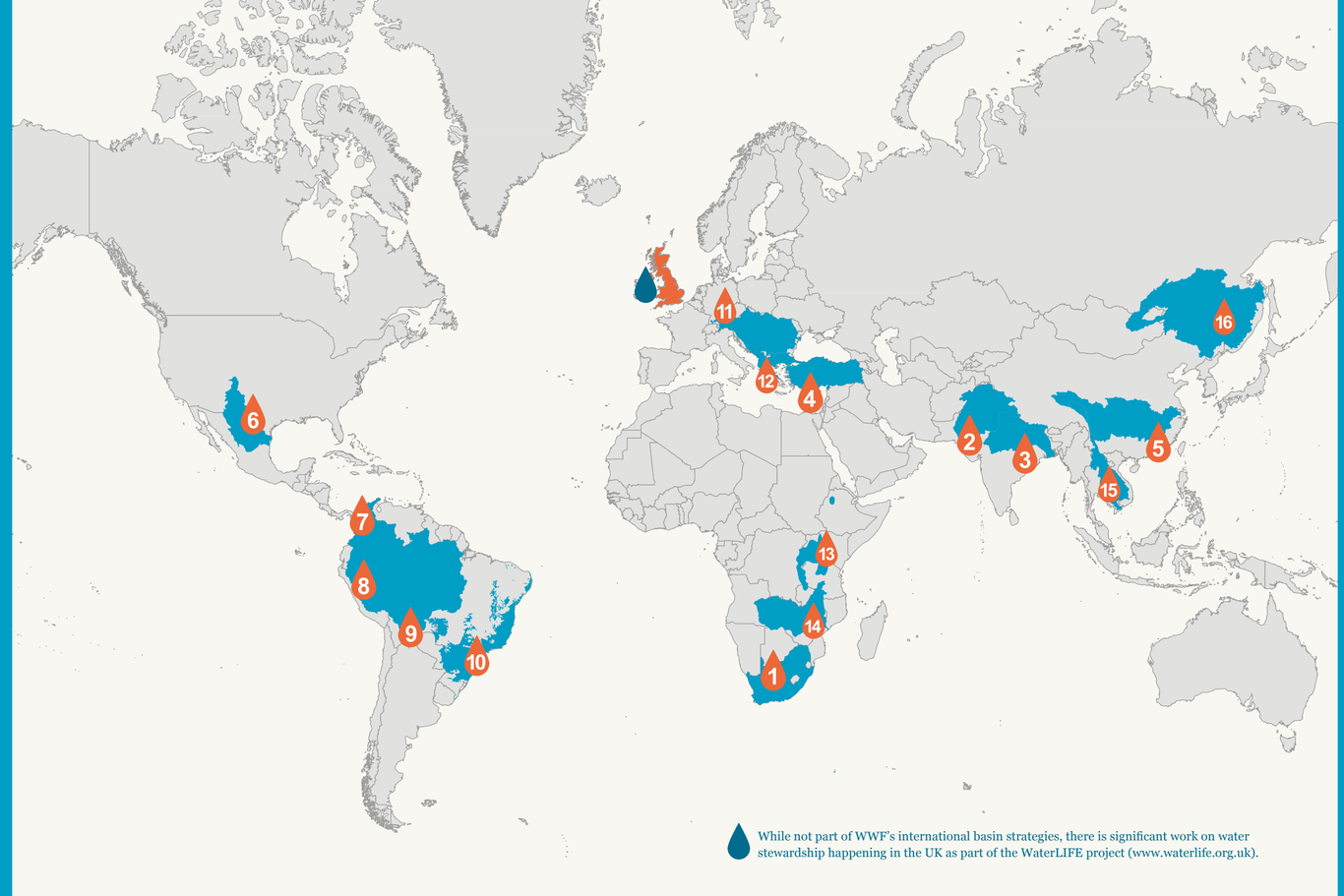
3 GANGES - INDIA

Moradabad, Uttar Pradesh (Ramganga Ganges Tributary)
Metalware

Kanpur, Uttar Pradesh (Ganges)
Leather

In the Ganges WWF is working on improving the water management practices of leather tanneries in the city of Kanpur and metalware SMEs in the city of Moradabad. Research on technical and financial feasibility of various clean technology options for businesses in these sectors is currently underway and WWF will soon share the findings with local businesses to support their adoption of cleaner technologies to reduce pollution.

In both cities there are plans to develop collective action platforms with the industry, city administration and key international buyers in order to address the pollution.



While not part of WWF's international basin strategies, there is significant work on water stewardship happening in the UK as part of the WaterLIFE project (www.waterlife.org.uk).

4 BUYUK MENDERES - TURKEY

Initially focusing on production clusters of Denizli and Usak
Leather and textiles

WWF has been working in the Buyuk Menderes for many years on wetland habitat protection and wise use of water resources in agriculture. The water stewardship programme will now build on and complement this work.

WWF is now in the initial phases of engaging textiles and leather producers on clean technology and will also be working with cotton producers in the region to improve water management practices and water pollution control. The work will then be leveraged to develop a collective action platform in the basin.

5 YANGTZE - CHINA

Taihu basin – near to Shanghai
Textiles SMEs

WWF has been working in the Taihu basin with a number of partners, including H&M, HSBC and Ecolab. The work so far has included developing a methodology for water stewardship at the industrial park (IP) level as well as testing and implementing the AWS Standard in an Ecolab factory in Taihu.

By developing collective action across Taihu and using the IP approach, this work is hoping to be upscaled meaning that water stewardship will be implemented within other industrial parks in China.

6 RIO GRANDE
7 COLOMBIAN RIVERS
8 AMAZON
9 PANTANAL & CERRADO
10 ATLANTIC FORESTS
11 DANUBE
12 BALCAN
13 EAST AFRICAN RIVERS
14 ZAMBEZI
15 MEKONG
16 AMUR HEILONG

What will WWF be doing?

In each basin WWF has carried out detailed analysis including mapping company supply chains, operations, donor investment as well as identifying existing platforms and forums. WWF plans to work with key stakeholders in each basin by:

- creating awareness of why water management matters and incentives for action for various actors
- facilitating collective action to identify projects and interventions that benefit all water users
- supporting water governance efforts over the long term for people and nature

What can you do?

WWF cannot do this alone; local government, business leadership, local stakeholders and others must be involved. If you have operations, investments or supply chains in our stewardship basins, contact: waterstewardship@wwf.org.uk.

Step 5: Influencing governance

Once improvements are made on behalf of a group of businesses or catchment water users, it is in their best interests to ensure these gains are locked in through improvements in strengthened governance (e.g., policy, legislation, formalised participation in governance, enforcement, etc.). Businesses can support governments to improve the way water is managed for the benefit of all and at the same time, apply pressure on those lagging companies who continue to affect water risk. This can happen at many scales – from the local water user association to national or even international policy. Simply put, strong water governance means reduced physical and reputational water risks for business, and a more stable, predictable regulatory landscape.

Any partnership or project a company is involved in should aim to improve water governance. For example, it could provide an example of effective policy implementation or be used to collectively influence to lobby for new policies to be adopted or existing ones implemented.

There are a number of steps within this stage:

a. Map the policy landscape. Do risks originate from a lack of policy or poor implementation of existing water policies? If it's a lack of policy, use the collective action platform to demonstrate good practice and lobby for new policies. If implementation is the problem, demonstrate through the project how policy can be put into practice and advocate for this to be rolled out more broadly.

b. Be transparent. Involvement in influencing water governance must aim to benefit all stakeholders. The legitimacy of intervention is critical and will be under increased scrutiny in future. It is important to make sure that:

- a company is talking action to ensure it has its own house in order before engaging on public policy

- all key stakeholders are represented in any decision-making

the business is not perceived to be skewing water policy for its own advantage

The *CEO Water Mandate's Guide to Responsible Business Engagement with Water Policy* sets out five key principles that should guide company action: ceowatermandate.org/files/Guide_Responsible_Business_Engagement_Water_Policy.pdf.

WWF has also published a report to provide support for business engagement in the public policy process, *Investigating shared risk in water: corporate engagement with the public policy process*. The report is available on WWF's website www.panda.org/ws.

Participation in disclosure initiatives, such as CDP Water, also helps to provide transparency on governance engagement efforts and thereby mitigate potential reputational risks around perceived "policy capture".

c. Look at the company's broader advocacy strategy. Make sure the company doesn't have conflicting policy positions by ensuring that policies are reconciled internally. A business doesn't want to be advocating for stronger water regulation while another part of the business is seeking deregulation around a complementary piece of legislation.

d. Build coalitions of support. A key part to step 5 is working with other businesses, NGOs, and other stakeholders to build coalitions to jointly advocate improved governance.

COCA-COLA AND WWF – SUPPORTING SUSTAINABLE WATER MANAGEMENT IN THE UK

Background

In 2012, WWF-UK, Coca-Cola Great Britain and Coca-Cola Enterprises embarked on a three-year partnership to improve the ecological health of English rivers, as set out by the EU Water Framework Directive. The partnership aimed to improve two rivers impacted by Coca-Cola's operations through direct on-the-ground actions, and to improve the health of all English rivers by influencing government and other businesses.

Influencing the governance of UK water resources

A key part of the partnership has been to influence governance of the water environment so that:

- improvements seen in the two on-the-ground catchments could be replicated elsewhere
- issues that can't be overcome at the catchment scale can be resolved through improved policy and legislation

Examples of activities undertaken by WWF-UK and Coca-Cola to influence governance include:

- co-hosting a roundtable for business and government representatives
- undertaking sessions at the political party conferences in the run up to the Water Bill passing through parliament
- river visits for politicians including the secretary of state for the environment and other businesses
- sharing experiences from the catchment projects as examples of best practice (e.g. the Nar Catchment Plan)[75]
- funding WWF staff to support the advocacy for better implementation of the Water Framework Directive

Business benefits

The partnership has helped raise a strong collective voice for change in the way water is managed in the UK, supporting a shift in legislation, policy and practice. These changes are helping to secure a more sustainable framework for managing water that will reduce domestic water risks to the UK business.

The key benefits of engaging to influence governance have been the opportunity to build strong relationships with key stakeholders, including government policy-makers; to demonstrate Coca-Cola's commitment to being a water-sustainable manufacturer and, as a responsible business, to influence industry to adopt best practice.

WWF AND COCA-COLA VISITING RIVER CRAY, SIDCUP

UK COMPANIES LOBBY FOR FAIR LAWS ON TIMBER IMPORTS

Background

Illegal and destructive logging threatens the world's remaining rainforests, with severe implications for nature, people and the climate. EU demand has helped to fuel this destruction, with illegally and unsustainably harvested timber ending up on construction sites and in stores across Europe. While not directly related to water, this case study provides an instructive example of how businesses can collectively influence for positive legislative changes.

Advocating for legislative change

In 2005, more than 100 progressive companies – who were being undercut by those sourcing illegal and unsustainable wood products – called on the European Union Commission to ban the import of all illegally sourced timber and wood products into the European market. Some companies went further, joining WWF as part of a delegation to Brussels to ask for this legislation. They also lobbied the UK government, with WWF, to support a new EU law and to properly record legal and sustainable timber levels entering the UK. In 2009, over 40 European companies signed up to a second industry statement calling for strong rules within the proposed EU Timber Regulation.

Outcomes and business benefits

As a result of these efforts, in 2009 and 2010 the EU introduced two pieces of legislation to strengthen timber licensing and outlaw the sale of timber from illegal sources. While there is still some way to go ensure the legislation covers all timber products, this was a hugely important step forward and shows the critical role that companies can play.

THE FSC LOGO SHOWS A PRODUCT HAS BEEN RESPONSIBLY SOURCED

LAKE NAIVASHA'S WATER STEWARDSHIP JOURNEY

Background

Lake Naivasha is a freshwater lake in Kenya's Eastern Rift Valley listed as a wetland of international importance since 1995. It's at the heart of Kenya's horticulture industry, supplying flowers and vegetables to the European market, particularly the UK. The booming horticulture industry has brought with it a rapidly growing population which has hugely impacted on local infrastructure.

Water risks in Naivasha

By 2009, following the worst drought in decades, water levels dropped to the lowest since the 1940s. Water quality has also suffered. Effluent discharges from some horticulture producers and smallholders, as well as the lack of sanitation infrastructure in the local town, were assumed to be the cause. In Kenya the national water policy is progressive but implementation is often weak. In Naivasha, many unregulated and illegal abstractions were taking place, contributing to the decline in lake and river levels.

With people, industry and iconic species like hippos and flamingos depending on the lake these physical and regulatory risks posed a huge problem.

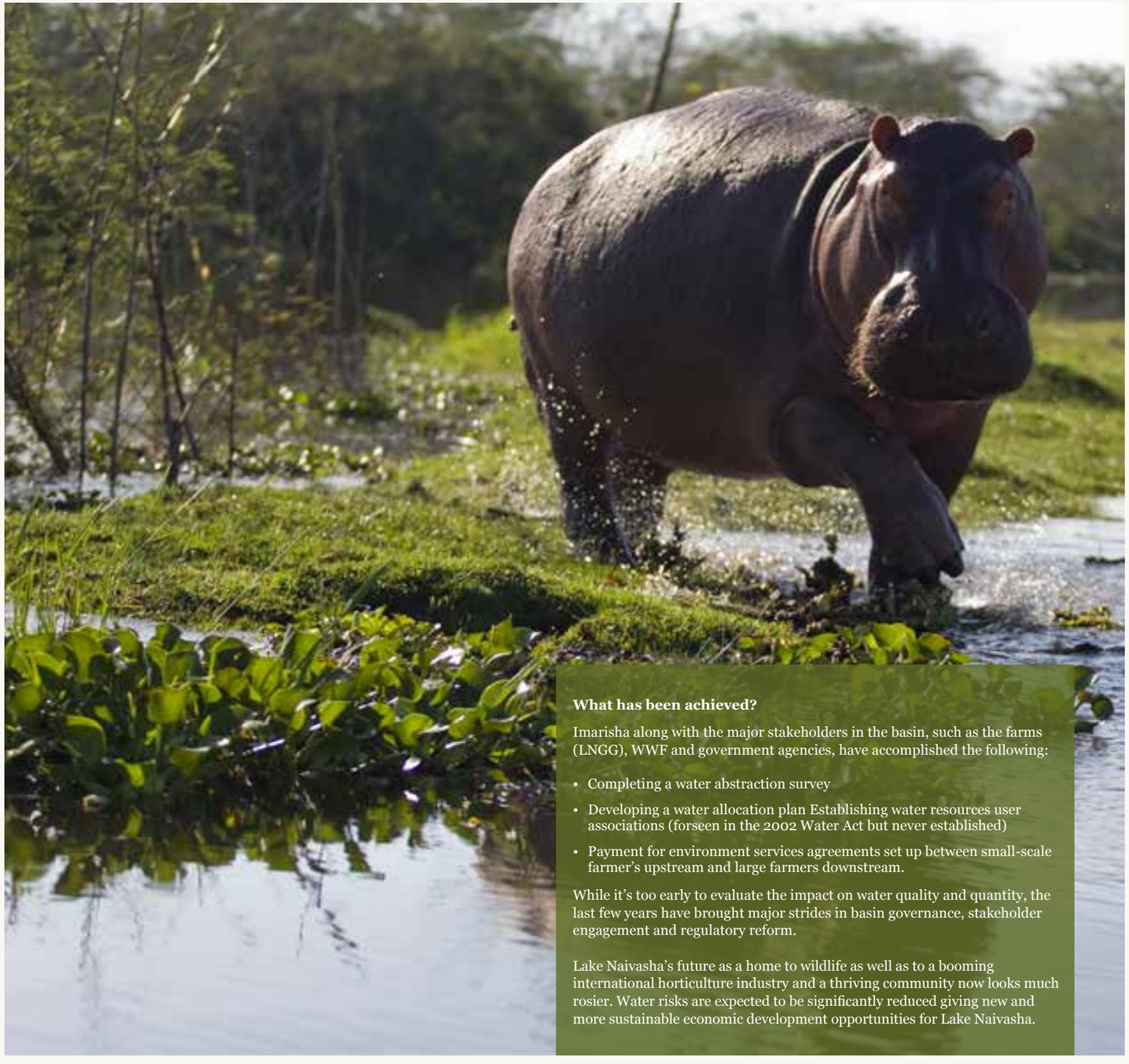
The media has shown a strong interest in Lake Naivasha, with major pieces on Valentine's Day roses appearing in many European newspapers in 2007. This posed a huge reputational risk for UK and European retailers sourcing from the flower farms in Naivasha, and put pressure on those companies to show they were acting responsibly.

How did collective action happen?

A number of progressive farmers were concerned about water-related risks, and had been improving on-farm efficiencies and working together to improve industry standards for years. Overall however there was little trust between stakeholders and continued discussion of who was to blame for local problems.

The drought in 2009 increased the urgency to address the problems. The WWF report, *Shared risk and opportunity in water resources*, demonstrated the importance of water to the Kenyan economy: cut flower exports – 70% of which come from Naivasha – generate 9% of Kenya's total foreign exchange revenue and 2-3% of GDP. It also established that all stakeholders, not only the major farms, run a considerable risk if water is not managed better. This helped secure the government's attention and brought stakeholders together to develop a 10-point joint action plan.

In 2011, Imarisha Navaisha was launched – a multi-stakeholder group with high-level engagement from the government and the support and funding of international retailers. Imarisha has a mandate to coordinate activities of various players engaged in the conservation of the lake and its catchment, and supports the government body that manages water in the local area.



What has been achieved?

Imarisha along with the major stakeholders in the basin, such as the farms (LNGG), WWF and government agencies, have accomplished the following:

- Completing a water abstraction survey
- Developing a water allocation plan Establishing water resources user associations (forseen in the 2002 Water Act but never established)
- Payment for environment services agreements set up between small-scale farmer's upstream and large farmers downstream.

While it's too early to evaluate the impact on water quality and quantity, the last few years have brought major strides in basin governance, stakeholder engagement and regulatory reform.

Lake Naivasha's future as a home to wildlife as well as to a booming international horticulture industry and a thriving community now looks much rosier. Water risks are expected to be significantly reduced giving new and more sustainable economic development opportunities for Lake Naivasha.

HIPPO ON BANK OF LAKE NAIVASHA, KENYA

4

LESSONS LEARNT FOR UK BUSINESS ON WATER STEWARDSHIP

There are a number of challenges companies have experienced when progressing along the water stewardship journey – a few of which are set out here. As learning emerges WWF, and the stakeholders it works with, will continue to develop its understanding of the challenges, and solutions for overcoming them, including the financial and wider benefits of doing so.

The CEO Water Mandate has produced guidance for businesses to engage responsibly in water policy, including a framework and set of principles to follow (ceowatermandate.org).

CHALLENGE	SUGGESTIONS FOR OVERCOMING AND THE BENEFIT IN DOING SO
The issues are complex, because there are: • multiple threats to water • a range of stakeholders who need to be part of the solution • a range of relevant policies that may conflict	The nature of water risks means that the impact that a company can have working alone is limited. Working collectively at a catchment or river basin level will provide a mechanism to bring stakeholders together to identify their shared risks and achieve the scale needed to address the challenge. It also provides a means for individual companies to contribute to water management in a way that is commensurate with their size/ resources and scale of the water risks they face.
Many companies are focusing on reducing water use rather than reducing risk.	Water efficiency is important, but on its own, not sufficient to fully mitigate risk. For example, if a company is operating in a water-stressed catchment where others continue to manage water poorly, then the business remains exposed to water risks, however efficient its own operations and supply chain. Collective action to influence the governance of water resources will help to proactively manage risk.
Awareness of the need for action in UK and European catchments is low.	Businesses can engage with suppliers and other businesses in their catchments to raise awareness. This report is part of a growing body of evidence highlighting that there are domestic and international water risks to UK business. The case studies in this report show the benefits that a number of UK businesses are seeing by proactively addressing their water risks.
Changing behaviour of supply chains can be difficult. It may be hard to map the full extent of the supply chain and the level of leverage a company can exert may be limited, for example if it is a minor purchaser of a specific commodity in a specific place.	The supply chain is a key source of water risk for many businesses and engaging suppliers in water stewardship initiatives is an important part of addressing risks. Working collaboratively with suppliers and explaining what you need them to do and providing tools and training to help them mitigate water risk is essential. Sharing lessons learnt between suppliers may also be helpful. Collaboration with other businesses sourcing from the same areas is a good way to achieve the influence needed with supply chains.
It can be difficult to measure impact, and many businesses don't have much experience of influencing the political space (except for deregulation).	There are standards that exist that allow businesses to measure impact and get recognition for successful site-level and catchment-level actions. For example the AWS Standard is freely available via an online application form at www.allianceforwaterstewardship.org. The CEO Water Mandate has produced guidance for businesses to engage responsibly in water policy, including a framework and set or principles to follow (ceowatermandate.org).

GOLDEN RULES

The experience of companies of engaging in water stewardship to date highlights a number of golden rules to help ensure action on water yields and economic, social and environmental benefits:

- Undertake a robust assessment of the water risks, establish priorities and ensure that action taken is strategic and targeted at addressing the priority risks identified.
- Create a clear and strong water strategy or policy that has leadership buy-in and make sure it is publicly available on the company's website.
- Consult staff and stakeholders in the development of the strategy/ policy and ensure there is buy-in across the organisation, including from the board, CEO and senior management.
- Recognise and make transparent decisions on trade-offs, for example between risk mitigation actions, water use and other environmental impacts (e.g., to manage greenhouse gas emissions, food security, etc.)
- Establish monitoring and evaluation processes to assess the impacts of any action. Identify suitable baselines and put in place targets that are focused on impacts (for business, for other water users, and for ecosystems and biodiversity) not just on activities.
- Go beyond water management. Efficiency and water quality are a great starting point, but don't neglect issues such as water governance, shared ecosystem services and climate change adaptation, especially those issues beyond the fence line that affect water risks.
- Identify the shared water challenges facing the catchments in which the company and supply chain operate.
- Partner with other stakeholders in shared responses (i.e. collective action). Work with allies who share the company's values and vision rather than convincing the nay-sayers or uninterested parties.
- Be engaged with catchment neighbours and supply chain and also pragmatic, trusted third parties such as NGOs to help facilitate dialogue.
- Ensure compliance with legislation, including by suppliers.
- Advocate strong governance and consistent, predictable legislation and be open about how the company is doing so.
- Share good practice with all stakeholders, the business case for taking action and the lessons learnt. This includes with WWF since we are keen to continue to develop our understanding of what motivates businesses to act on water so that it can inform our understanding of water stewardship drivers.
- Drive transparency and disclose the company's actions through organisations such as CDP to demonstrate to investors, purchasers and government that the company is managing water risks and taking advantages of opportunities.
- Don't be afraid to innovate: water stewardship continues to evolve, and it's only by trialling different approaches that everyone can continually improve. Water stewardship is an adaptive and shared learning journey.

5 RECOMMENDATIONS FOR OTHER STAKEHOLDERS

These are recommendations for non-business actors who want to support businesses to begin or progress on their own water stewardship journey.

Investors

Investors should assess the water risk across their investment portfolio and proactively engage with their clients to manage water-related risks:

Assessing risk across the investment portfolio

- Develop standards and policies for water risk analysis and impacts in their internal decision-making processes.
- Systematically assess investment and financing mechanisms, and assets, for water-related risks.
- Develop standardised company and asset-based water risk disclosures and engage with company management boards in order to enhance risk management. CDP and the Global Reporting Initiative both provide disclosure mechanisms.
- Include water-related risks in overall asset and credit risk estimates. Specific investment and credit policies relating to water often only focus on reducing reputational risk.
- Develop methodologies to translate water-related risks to business value at risk in cooperation with businesses and integrate this into financial decisions. Quantifying value at risk from water scarcity and quality is a crucial point for decision-making.
- Where appropriate, exclude clients from portfolios that do not appropriately address and manage water-related risks after actively engaging with them on a regular basis.
- Disclose water risk exposure and demonstrate water risk mitigation actions publicly.

Engage with their clients to manage water-related risks

- Proactively support companies that are seeking to reduce water-related risks – reward and recognise water stewardship.
- Develop sector-specific sustainable water risk reduction strategies to address and provide technical assistance for risky clients and/or investments to ultimately mitigate risks together with strategic stakeholders on the ground.
- Adhere to initiatives such as the Equator Principles and/or the UNEP Financial Initiative's water stewardship scheme and develop industry-specific codes of practice when necessary.

UK government

The UK government should do more to foster enabling conditions for corporate water stewardship in order to mitigate water risks to UK businesses associated with producing goods both at home and overseas. The UK government should take action to reduce the risk associated with producing goods within the UK and associated with imported goods:

To reduce risks associated with producing goods within the UK

- Share the evidence base, for example the Environment Agency's water and agriculture monitoring, widely with business and explore opportunities to help businesses identify key hotspots (e.g. showing impacts related to product type).

- Ensure there is a strong framework for the sustainable management of water, for example, by:
  - targeting efforts to bring non-compliant farmers in England into compliance and that basic legislation is sufficient to support further achievement of good heath, as defined by the Water Framework Directive
  - reforming abstraction licensing to ensure environmental needs are met as a function of every licence and that abstraction charges encourage efficient use
  - continuing investment in the Catchment Based Approach including by exploring ways to encourage private sector support and funding

- Provide farm advice and incentives to encourage better water management practices, through ongoing support of Catchment Sensitive Farming and targeted Countryside Stewardship, encouraging knowledge exchange with private sector schemes and enabling private sector matched-funding.

To reduce risks associated with imported goods

- Establish a comprehensive understanding of the international water risks the UK economy is exposed to, for example through reviewing water risk data that is disclosed to CDP (www.cdp.net).

- Review the data to identify priority risks.

- Identify key stakeholders and develop programmes of action to drive and support mitigation of these risks.

- Support oversees efforts to develop public private partnerships around basin stewardship in basins that have been identified as priority risks to the UK economy.

- Support UK banking regulators to robustly screen water risks and support opportunities to mitigate risks.

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RIVER GANGES, INDIA © SEJAL WORAH / WWF INDIA

WATER RISK IN NUMBERS

100% RECYCLED

17%

Only 17% of England's rivers meet the required Good Ecological Status

1 IN 3

1 in 3 pressures on England's rivers are attributed to the agricultural sector – the production of food and drink

60%

According to the UN, in 16 years the planet may only meet 60% of the global demand for water

-33%

The global freshwater index has declined by over one-third since 1970

Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

wwf.org.uk